Refine Search

Search Results -

Terms	Documents
L3 same (inhibit$ or analog)	12

Database:
US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Search: L5

Refine Search

Recall Text Clear Interrupt

Search History

DATE: Wednesday, November 22, 2006 **Purge Queries** Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=NO; OP=OR			
L5	L3 same (inhibit$ or analog)	12	L5
L4	L3 same inhibit$ or (substrate (3n) analog)	2759926	L4
L3	L2 same (st3 or st3gal)	68	L3
L2	sialyl or sialic or sialyltranferase	8671	L2
L1	6376475.pn. or 6280989.pn.	4	L1

END OF SEARCH HISTORY

```
  s (sialyltransferase or sialyl or sialic) (s) inhibit?
Processing
Processing
        12762   SIALYLTRANSFERASE
        24632   SIALYL
        88288   SIALIC
      9193986   INHIBIT?
S1      17065   S (SIALYLTRANSFERASE OR SIALYL OR SIALIC) (S) INHIBIT?

?  s s2 and (substrate (s) analog)
>>>W:  "S2" does not exist
            0   S2
      2052422   SUBSTRATE
       640086   ANALOG
        20025   SUBSTRATE(S)ANALOG
S2          0   S S2 AND (SUBSTRATE (S) ANALOG)

?  s s1 and (substrate (s) analog?)
Processing
        17065   S1
      2052422   SUBSTRATE
      2552224   ANALOG?
        77671   SUBSTRATE(S)ANALOG?
S3        134   S S1 AND (SUBSTRATE (S) ANALOG?)

?  s s1 and (atherosclero? or clot?)
Processing
        17065   S1
       504395   ATHEROSCLERO?
       419712   CLOT?
S4        215   S S1 AND (ATHEROSCLERO? OR CLOT?)

?  rd
Processing
>>>W:  Duplicate detection is not supported for File 393.
Records from unsupported files will be retained in the RD set.
S5        105   RD  (UNIQUE ITEMS)

?  s (s5 or s2) and (vwf or factor)
          105   S5
            0   S2
        28595   VWF
      7365800   FACTOR
S6         43   S (S5 OR S2) AND (VWF OR FACTOR)

?  rd
>>>W:  Duplicate detection is not supported for File 393.
Records from unsupported files will be retained in the RD set.
S7         43   RD  (UNIQUE ITEMS)

?  show files
```

[File 5] **Biosis Previews(R)** 1969-2006/Nov W3

[File 6] **NTIS** 1964-2006/Nov W2

[File 8] **Ei Compendex(R)** 1884-2006/Nov W1

**File 8: The file has been reprocessed and accession numbers have changed. See HELP NEWS988 for details.*

[File 24] **CSA Life Sciences Abstracts** 1966-2006/Oct

[File 34] **SciSearch(R) Cited Ref Sci** 1990-2006/Nov W3

[File 45] **EMCare** 2006/Nov W2

[File 65] **Inside Conferences** 1993-2006/Nov 22

[File 71] **ELSEVIER BIOBASE** 1994-2006/Nov W3

[File 73] **EMBASE** 1974-2006/Nov 22

[File 94] **JICST-EPlus** 1985-2006/Aug W1

[File 98] **General Sci Abs** 1984-2006/Oct

[File 99] **Wilson Appl. Sci & Tech Abs** 1983-2006/Sep

[File 135] **NewsRx Weekly Reports** 1995-2006/Nov W3

[File 136] **BioEngineering Abstracts** 1966-2006/Oct

[File 143] **Biol. & Agric. Index** 1983-2006/Sep

[File 144] **Pascal** 1973-2006/Oct W5

[File 155] **MEDLINE(R)** 1950-2006/Nov 15

**File 155: NLM will not provide updates from November 16-20. Please see HELP NEWS 154 for details.*

[File 172] **EMBASE Alert** 2006/Nov 22

[File 266] **FEDRIP** 2006/Aug

[File 315] **ChemEng & Biotec Abs** 1970-2006/Oct

[File 357] **Derwent Biotech Res.** _1982-2006/Nov W4

[File 358] **Current BioTech Abs** 1983-2006/Jan

[File 369] **New Scientist** 1994-2006/Sep W2

[File 370] **Science** 1996-1999/Jul W3

**File 370: This file is closed (no updates). Use File 47 for more current information.*

[File 399] **CA SEARCH(R)** 1967-2006/UD=14522

**File 399: Use is subject to the terms of your user/customer agreement. IPCR/8 classification codes now searchable as IC=. See HELP NEWSIPCR.*

[File 434] **SciSearch(R) Cited Ref Sci** 1974-1989/Dec

[File 40] **Enviroline(R)** 1975-2006/Oct

[File 41] **Pollution Abstracts** 1966-2006/Oct

[File 50] **CAB Abstracts** 1972-2006/Oct

[File 103] **Energy SciTec** 1974-2006/Sep B1

**File 103: For access restrictions see Help Restrict.*

[File 156] **ToxFile** 1965-2006/Nov W1

**File 156: NLM will not provide updates to the file from November 16-20. Please see HELP NEWS154 for details.*

[File 162] **Global Health** 1983-2006/Oct

[File 305] **Analytical Abstracts** 1980-2006/Nov W2

**File 305: Alert feature enhanced for multiple files, duplicate removal, customized scheduling. See HELP ALERT.*

[File 393] **Beilstein Abstracts** 2006/Q3

[File 35] **Dissertation Abs Online** 1861-2006/Oct

[File 91] **MANTIS(TM)** 1880-2006/Jan

[File 149] **TGG Health&Wellness DB(SM)** 1976-2006/Nov W1

[File 159] **Cancerlit** 1975-2002/Oct

**File 159: Cancerlit is no longer updating. Please see HELP NEWS159.*

[File 164] **Allied & Complementary Medicine** 1984-2006/Nov

[File 444] **New England Journal of Med.** 1985-2006/Nov W2

[File 467] **ExtraMED(tm)** 2000/Dec


```
; d s
Set     Items   Description
S1      17065   S (SIALYLTRANSFERASE OR SIALYL OR SIALIC) (S) INHIBIT?
S2          0   S S2 AND (SUBSTRATE (S) ANALOG)
S3        134   S S1 AND (SUBSTRATE (S) ANALOG?)
S4        215   S S1 AND (ATHEROSCLERO? OR CLOT?)
S5        105   RD  (unique items)
S6         43   S (S5 OR S2) AND (VWF OR FACTOR)
S7         43   RD  (unique items)
```

Logon
*** It is now 11/22/06 1:14:08 PM ***

Welcome to DialogLink - Version 5
Revolutionize the Way You Work!

New on Dialog
Enhanced Derwent World Patents Index Now Available

The enhanced *Derwent World Patents Index*® (*DWPI*SM) (Files 350,351,352) is now available on Dialog. The improvements implemented in *DWPI* on Dialog further extend the database's rich content set and enhances overall functionality of the database.

In addition to distilled expert analysis reflected in *DWPI* expanded titles and abstracts, other enhancements include original patent filing details, multiple patent images, easy cut-and-paste patent family data, and much more.

The new templates include new features that will help you manage and distribute your *DWPI* search results in an attractive format.

Learn about all of the new DWPI enhancements and report templates at **http://www.dialog.com/dwpi**.

DialogLink 5 Release Notes
New features available in the latest release of DialogLink 5 (November 2005)

- Ability to resize images for easier incorporation into DialogLink Reports
- New settings allow users to be prompted to save Dialog search sessions in the format of their choice (Microsoft Word, RTF, PDF, HTML, or TEXT)
- Ability to set up Dialog Alerts by Chemical Structures and the addition of Index Chemicus as a structure searchable database
- Support for connections to STN Germany and STN Japan services

Show Preferences for details

```
? Help Log On Msg
           *** ANNOUNCEMENTS ***
                   ***
NEW FILES RELEASED
***Engineering Index Backfile (File 988)
***Verdict Market Research (File 769)
***EMCare (File 45)
***Trademarkscan - South Korea (File 655)
```

```
RESUMED UPDATING
***File 141, Reader's Guide Abstracts
                    ***
RELOADS COMPLETED
***Files 173 & 973, Adis Clinical Trials Insight
***File 11, PsycInfo
***File 531, American Business Directory
*** The 2005 reload of the CLAIMS files (Files 340, 341, 942)
is now available online.
                                ***
DATABASES REMOVED
***File 196, FINDEX
***File 468, Public Opinion Online (POLL)

Chemical Structure Searching now available in Prous Science Drug
Data Report (F452), Prous Science Drugs of the Future (F453),
IMS R&D Focus (F445/955), Pharmaprojects (F128/928), Beilstein
Facts (F390), Derwent Chemistry Resource (F355) and Index Chemicus
(File 302).
                    ***
 >>>For the latest news about Dialog products, services, content<<<
 >>>and events, please visit What's New from Dialog at <<<
 >>>http://www.dialog.com/whatsnew/.  You can find news about<<<
 >>>a specific database by entering HELP NEWS <file number>.<<<

? Help Off Line
* * *
Connecting to jane zara - Dialog - 243084
Connected to Dialog via SMS00325

?  b biotech biochem medicine
>>>W:            76 is unauthorized
        138 is unauthorized
2 of the specified files are not available
```

[File 5] **Biosis Previews(R)** 1969-2006/Nov W3
(c) 2006 The Thomson Corporation. All rights reserved.

[File 6] **NTIS** 1964-2006/Nov W2
(c) 2006 NTIS, Intl Cpyrght All Rights Res. All rights reserved.

[File 8] **Ei Compendex(R)** 1884-2006/Nov W1
(c) 2006 Elsevier Eng. Info. Inc. All rights reserved.
**File 8: The file has been reprocessed and accession numbers have changed. See HELP NEWS988 for details.*

[File 24] **CSA Life Sciences Abstracts** 1966-2006/Oct
(c) 2006 CSA. All rights reserved.

[File 34] **SciSearch(R) Cited Ref Sci** 1990-2006/Nov W3
(c) 2006 The Thomson Corp. All rights reserved.

[File 45] **EMCare** 2006/Nov W2
(c) 2006 Elsevier B.V. All rights reserved.

[File 65] **Inside Conferences** 1993-2006/Nov 22
(c) 2006 BLDSC all rts. reserv. All rights reserved.

[File 71] **ELSEVIER BIOBASE** 1994-2006/Nov W3

[File 73] **EMBASE** 1974-2006/Nov 22

[File 94] **JICST-EPlus** 1985-2006/Aug W1

[File 98] **General Sci Abs** 1984-2006/Oct

[File 99] **Wilson Appl. Sci & Tech Abs** 1983-2006/Sep

[File 135] **NewsRx Weekly Reports** 1995-2006/Nov W3

[File 136] **BioEngineering Abstracts** 1966-2006/Oct

[File 143] **Biol. & Agric. Index** 1983-2006/Sep

[File 144] **Pascal** 1973-2006/Oct W5

[File 155] **MEDLINE(R)** 1950-2006/Nov 15

**File 155: NLM will not provide updates from November 16-20. Please see HELP NEWS 154 for details.*

[File 172] **EMBASE Alert** 2006/Nov 22

[File 266] **FEDRIP** 2006/Aug

[File 315] **ChemEng & Biotec Abs** 1970-2006/Oct

[File 357] **Derwent Biotech Res.** _1982-2006/Nov W4

[File 358] **Current BioTech Abs** 1983-2006/Jan

[File 369] **New Scientist** 1994-2006/Sep W2

[File 370] **Science** 1996-1999/Jul W3
(c) 1999 AAAS. All rights reserved.
**File 370: This file is closed (no updates). Use File 47 for more current information.*

[File 399] **CA SEARCH(R)** 1967-2006/UD=14522
(c) 2006 American Chemical Society. All rights reserved.
**File 399: Use is subject to the terms of your user/customer agreement. IPCR/8 classification codes now searchable as IC=. See HELP NEWSIPCR.*

[File 434] **SciSearch(R) Cited Ref Sci** 1974-1989/Dec
(c) 2006 The Thomson Corp. All rights reserved.

[File 40] **Enviroline(R)** 1975-2006/Oct
. All rights reserved.

[File 41] **Pollution Abstracts** 1966-2006/Oct
(c) 2006 CSA. All rights reserved.

[File 50] **CAB Abstracts** 1972-2006/Oct
(c) 2006 CAB International. All rights reserved.

[File 103] **Energy SciTec** 1974-2006/Sep B1
(c) 2006 Contains copyrighted material. All rights reserved.
**File 103: For access restrictions see Help Restrict.*

[File 156] **ToxFile** 1965-2006/Nov W1
(c) format only 2006 Dialog. All rights reserved.
**File 156: NLM will not provide updates to the file from November 16-20. Please see HELP NEWS154 for details.*

[File 162] **Global Health** 1983-2006/Oct
(c) 2006 CAB International. All rights reserved.

[File 305] **Analytical Abstracts** 1980-2006/Nov W2
(c) 2006 Royal Soc Chemistry. All rights reserved.
**File 305: Alert feature enhanced for multiple files, duplicate removal, customized scheduling. See HELP ALERT.*

[File 393] **Beilstein Abstracts** 2006/Q3
(c) 2006 Beilstein GmbH. All rights reserved.

[File 35] **Dissertation Abs Online** 1861-2006/Oct
(c) 2006 ProQuest Info&Learning. All rights reserved.

[File 91] **MANTIS(TM)** 1880-2006/Jan
2001 (c) Action Potential. All rights reserved.

[File 149] **TGG Health&Wellness DB(SM)** 1976-2006/Nov W1
(c) 2006 The Gale Group. All rights reserved.

[File 159] **Cancerlit** 1975-2002/Oct

File 159: Cancerlit is no longer updating. Please see HELP NEWS159.

[File 164] **Allied & Complementary Medicine** 1984-2006/Nov

[File 444] **New England Journal of Med.** 1985-2006/Nov W2

[File 467] **ExtraMED(tm)** 2000/Dec


```
?  s (sialyltransferase or sialyl or sialic) (s) inhibit?
Processing
Processing
        12762   SIALYLTRANSFERASE
        24632   SIALYL
        88288   SIALIC
      9193986   INHIBIT?
S1      17065   S (SIALYLTRANSFERASE OR SIALYL OR SIALIC) (S) INHIBIT?

?  s s2 and (substrate (s) analog)
>>>W:  "S2" does not exist
            0   S2
      2052422   SUBSTRATE
       640086   ANALOG
        20025   SUBSTRATE(S)ANALOG
S2          0   S S2 AND (SUBSTRATE (S) ANALOG)

?  s s1 and (substrate (s) analog?)
Processing
        17065   S1
      2052422   SUBSTRATE
      2552224   ANALOG?
        77671   SUBSTRATE(S)ANALOG?
S3        134   S S1 AND (SUBSTRATE (S) ANALOG?)

?  s s1 and (atherosclero? or clot?)
Processing
        17065   S1
       504395   ATHEROSCLERO?
       419712   CLOT?
S4        215   S S1 AND (ATHEROSCLERO? OR CLOT?)

?  rd
Processing
>>>W:  Duplicate detection is not supported for File 393.
Records from unsupported files will be retained in the RD set.
S5        105   RD  (UNIQUE ITEMS)

?  s (s5 or s2) and (vwf or factor)
          105   S5
            0   S2
        28595   VWF
```

```
      7365800   FACTOR
S6          43   S (S5 OR S2) AND (VWF OR FACTOR)

?  rd
>>>W:  Duplicate detection is not supported for File 393.
Records from unsupported files will be retained in the RD set.
S7          43   RD  (UNIQUE ITEMS)

?  show files
```

[File 5] **Biosis Previews(R)** 1969-2006/Nov W3
(c) 2006 The Thomson Corporation. All rights reserved.

[File 6] **NTIS** 1964-2006/Nov W2
(c) 2006 NTIS, Intl Cpyrght All Rights Res. All rights reserved.

[File 8] **Ei Compendex(R)** 1884-2006/Nov W1
(c) 2006 Elsevier Eng. Info. Inc. All rights reserved.
**File 8: The file has been reprocessed and accession numbers have changed. See HELP NEWS988 for details.*

[File 24] **CSA Life Sciences Abstracts** 1966-2006/Oct
(c) 2006 CSA. All rights reserved.

[File 34] **SciSearch(R) Cited Ref Sci** 1990-2006/Nov W3
(c) 2006 The Thomson Corp. All rights reserved.

[File 45] **EMCare** 2006/Nov W2
(c) 2006 Elsevier B.V. All rights reserved.

[File 65] **Inside Conferences** 1993-2006/Nov 22
(c) 2006 BLDSC all rts. reserv. All rights reserved.

[File 71] **ELSEVIER BIOBASE** 1994-2006/Nov W3
(c) 2006 Elsevier B.V. All rights reserved.

[File 73] **EMBASE** 1974-2006/Nov 22
(c) 2006 Elsevier B.V. All rights reserved.

[File 94] **JICST-EPlus** 1985-2006/Aug W1
(c)2006 Japan Science and Tech Corp(JST). All rights reserved.

[File 98] **General Sci Abs** 1984-2006/Oct
(c) 2006 The HW Wilson Co. All rights reserved.

[File 99] **Wilson Appl. Sci & Tech Abs** 1983-2006/Sep
(c) 2006 The HW Wilson Co. All rights reserved.

[File 135] **NewsRx Weekly Reports** 1995-2006/Nov W3
(c) 2006 NewsRx. All rights reserved.

[File 136] **BioEngineering Abstracts** 1966-2006/Oct

(c) 2006 CSA. All rights reserved.

[File 143] **Biol. & Agric. Index** 1983-2006/Sep
(c) 2006 The HW Wilson Co. All rights reserved.

[File 144] **Pascal** 1973-2006/Oct W5
(c) 2006 INIST/CNRS. All rights reserved.

[File 155] **MEDLINE(R)** 1950-2006/Nov 15
(c) format only 2006 Dialog. All rights reserved.
**File 155: NLM will not provide updates from November 16-20. Please see HELP NEWS 154 for details.*

[File 172] **EMBASE Alert** 2006/Nov 22
(c) 2006 Elsevier B.V. All rights reserved.

[File 266] **FEDRIP** 2006/Aug
Comp & dist by NTIS, Intl Copyright All Rights Res. All rights reserved.

[File 315] **ChemEng & Biotec Abs** 1970-2006/Oct
(c) 2006 DECHEMA. All rights reserved.

[File 357] **Derwent Biotech Res.** _1982-2006/Nov W4
(c) 2006 The Thomson Corp. All rights reserved.

[File 358] **Current BioTech Abs** 1983-2006/Jan
(c) 2006 DECHEMA . All rights reserved.

[File 369] **New Scientist** 1994-2006/Sep W2
(c) 2006 Reed Business Information Ltd. All rights reserved.

[File 370] **Science** 1996-1999/Jul W3
(c) 1999 AAAS. All rights reserved.
**File 370: This file is closed (no updates). Use File 47 for more current information.*

[File 399] **CA SEARCH(R)** 1967-2006/UD=14522
(c) 2006 American Chemical Society. All rights reserved.
**File 399: Use is subject to the terms of your user/customer agreement. IPCR/8 classification codes now searchable as IC=. See HELP NEWSIPCR.*

[File 434] **SciSearch(R) Cited Ref Sci** 1974-1989/Dec
(c) 2006 The Thomson Corp. All rights reserved.

[File 40] **Enviroline(R)** 1975-2006/Oct
. All rights reserved.

[File 41] **Pollution Abstracts** 1966-2006/Oct
(c) 2006 CSA. All rights reserved.

[File 50] **CAB Abstracts** 1972-2006/Oct

[File 103] **Energy SciTec** 1974-2006/Sep B1

**File 103: For access restrictions see Help Restrict.*

[File 156] **ToxFile** 1965-2006/Nov W1

**File 156: NLM will not provide updates to the file from November 16-20. Please see HELP NEWS154 for details.*

[File 162] **Global Health** 1983-2006/Oct

[File 305] **Analytical Abstracts** 1980-2006/Nov W2

**File 305: Alert feature enhanced for multiple files, duplicate removal, customized scheduling. See HELP ALERT.*

[File 393] **Beilstein Abstracts** 2006/Q3

[File 35] **Dissertation Abs Online** 1861-2006/Oct

[File 91] **MANTIS(TM)** 1880-2006/Jan

[File 149] **TGG Health&Wellness DB(SM)** 1976-2006/Nov W1

[File 159] **Cancerlit** 1975-2002/Oct

**File 159: Cancerlit is no longer updating. Please see HELP NEWS159.*

[File 164] **Allied & Complementary Medicine** 1984-2006/Nov

[File 444] **New England Journal of Med.** 1985-2006/Nov W2

[File 467] **ExtraMED(tm)** 2000/Dec


```
; d s
Set     Items   Description
S1      17065   S (SIALYLTRANSFERASE OR SIALYL OR SIALIC) (S) INHIBIT?
S2          0   S S2 AND (SUBSTRATE (S) ANALOG)
S3        134   S S1 AND (SUBSTRATE (S) ANALOG?)
S4        215   S S1 AND (ATHEROSCLERO? OR CLOT?)
```

```
S5         105   RD  (unique items)
S6          43   S (S5 OR S2) AND (VWF OR FACTOR)
S7          43   RD  (unique items)
 ; t /3,k/all
>>>W:  KWIC option is not available in file(s): 399
```

7/3,K/1 (Item 1 from file: 5) **Links**

Fulltext available through: American Society for Biochemistry and Molecular Biology (ASBMB) USPTO Full Text Retrieval Options SCIENCEDIRECT

Biosis Previews(R)

0015028674 **Biosis No.:** 200400399463

Disialoganglioside (GD3) synthase gene expression suppresses vascular smooth muscle cell responses via the inhibition of ERK1/2 phosphorylation, cell cycle progression, and matrix metalloproteinase-9 expression

Author: Moon Sung-Kwon; Kim Hong-Man; Lee Young-Choon; Kim Cheorl-Ho (Reprint)
Author Address: Coll Oriental MedMinist Sci and TechnolNRL Glycobiol, Dongguk Univ, Sukjang Dong 707, Kyungju City, Kyungbuk, 780714, South Korea**South Korea
Author E-mail Address: chkimbio@dongguk.ac.kr

Journal: Journal of Biological Chemistry 279 (32): p 33063-33070 August 6, 2004 2004
Medium: print
ISSN: 0021-9258
Document Type: Article
Record Type: Abstract
Language: English

Abstract: Sialic acid-containing glycosphingolipids (gangliosides) have been implicated in the regulation of various biological phenomena such as **atherosclerosis**. Recent report suggests that exogenously supplied disialoganglioside (GD3) serves a dual role in vascular smooth... ...synthesis was examined. The results show that the overexpression of this gene has a potent **inhibitory** effect on DNA synthesis and ERK phosphorylation in cultured VSMC in the presence of PDGF... ...was correlated with the down-regulation of cyclinE/CDK2, the up-regulation of the CDK **inhibitor** p21 and blocking of the p27 **inhibition**, whereas up-regulation of p53 as the result of GD3 synthase gene expression was not... ...and cell cycle proteins. The expression of the GD3 synthase gene also led to the **inhibition** of TNF-alpha-induced matrix metalloproteinase-9 (MMP-9) expression in VSMC as determined by... ...synthase gene expression strongly decreased MMP-9 promoter activity in response to TNF-alpha. This **inhibition** was characterized by the downregulation of MMP-9, which was transcriptionally regulated at NF-kappaB ... ...gene represents a physiological modulator of VSMC responses that may contribute to plaque instability in **atherosclerosis**.

Descriptors:

Chemicals & Biochemicals: ...NF-kappa-B {nuclear **factor**-kappa-B... ...PDGF {platelet-derived growth **factor**}

7/3,K/2 (Item 2 from file: 5) **Links**
Fulltext available through: USPTO Full Text Retrieval Options SCIENCEDIRECT
Biosis Previews(R)

0014143128 **Biosis No.:** 200300101847
Relation of serum sialic acid to blood coagulation activity in type 2 diabetes.

Author: Wakabayashi I (Reprint); Masuda H
Author Address: Department of Hygiene and Preventive Medicine, School of Medicine, Yamagata University, Iida-Nishi 2-2-2, Yamagata, 990-9585, Japan**Japan
Author E-mail Address: wakabaya@med.id.yamagata-u.ac.jp
Journal: Blood Coagulation and Fibrinolysis 13 (8): p 691-696 December 2002 2002
Medium: print
ISSN: 0957-5235
Document Type: Article
Record Type: Abstract
Language: English

Abstract: The level of serum **sialic** acid, which is known to reflect **atherosclerotic** progress and to be related to the incidence of cardiovascular diseases, is increased in patients with diabetes. To elucidate the mechanism of the relation of serum **sialic** acid to fibrinogen, the relationship between serum **sialic** acid and markers of blood coagulation activity was investigated in type 2 diabetic patients. The concentration of serum **sialic** acid showed significant positive correlations with blood platelet count and with plasma concentrations of fibrinogen, D-dimer, thrombin-antithrombin III complex and plasmin-alpha2 plasmin **inhibitor** complex. These relationships were still significant after adjustment for age, sex, smoking history, body mass... ...arterial pressure and low-density lipoprotein cholesterol. The correlation coefficient of blood fibrinogen with serum **sialic** acid was still significant after adjustment for D-dimer, thrombin-antithrombin III complex or plasmin-alpha2 plasmin **inhibitor** complex. On the contrary, blood fibrinogen showed no significant correlation with D-dimer, thrombin-antithrombin III complex or plasmin-alpha2 plasmin **inhibitor** complex, although an increase in blood fibrinogen is known to be an **atherosclerotic** risk **factor**. These results suggest that the serum **sialic** acid level reflects blood coagulation activity in type 2 diabetic patients and is related to...

7/3,K/3 (Item 3 from file: 5) **Links**
Fulltext available through: USPTO Full Text Retrieval Options SCIENCEDIRECT
Biosis Previews(R)

0012812226 **Biosis No.:** 200000530539

Electronegative LDL from normolipemic subjects induces IL-8 and monocyte chemotactic protein secretion by human endothelial cells

Author: De Castellarnau Conxita (Reprint); Sanchez-Quesada Jose Luis; Benitez Sonia ; Rosa Roser; Caveda Luis; Vila Luis; Ordonez-Llanos Jordi
Author Address: Rosellon 12, 4th 1a Esc A, 08029, Barcelona, Spain**Spain
Journal: Arteriosclerosis Thrombosis and Vascular Biology 20 (10): p 2281-2287 October, 2000 2000
Medium: print
ISSN: 1079-5642
Document Type: Article
Record Type: Abstract
Language: English

Abstract: ...8 (IL-8) and monocyte chemotactic protein-1 (MCP-1)) and in the plasminogen activator **inhibitor**-1 (PAI-1). LDL(-), isolated by anion-exchange chromatography, differed from nonelectronegative LDL (LDL(+)) in its higher triglyceride, nonesterified fatty acid, apoprotein E and apoprotein C-III, and **sialic** acid contents. No evidence of extensive oxidation was found in LDL(-); its antioxidant and thiobarbituric ... ...not with LDL(+). However, no cytotoxic effects of LDL(-) were observed on ECs. Actinomycin D **inhibited** the release of IL-8 and MCP-1 induced by LDL(-) and oxLDL by up... ...that their production is mediated by protein synthesis. Incubation of ECs with N-acetyl cysteine **inhibited** production of IL-8 and MCP-1 induced by LDL(-) and oxLDL by >50%. The free radical scavenger butylated hydroxytoluene slightly **inhibited** the effect of oxLDL but did not modify the effect of LDL(-). An antagonist (BN-50730) of the platelet-activating **factor** receptor **inhibited** production of both chemokines by LDL(-) and oxLDL in a concentration-dependent manner. Our results indicate that LDL(-) shows proinflammatory activity on ECs and may contribute to early **atherosclerotic** events.
Descriptors:
Chemicals & Biochemicals: ...platelet-activating **factor** receptor antagonist...

7/3,K/4 (Item 4 from file: 5) **Links**
Fulltext available through: USPTO Full Text Retrieval Options SCIENCEDIRECT
Biosis Previews(R)

0010833690 **Biosis No.:** 199799467750
Monocyte adhesion to activated aortic endothelium: Role of L-selectin and heparan sulfate proteoglycans

Author: Giuffre Laura; Cordey Anne-Sophie; Monai Natacha; Tardy Yanik; Schapira Marc; Spertini Olivier (Reprint)
Author Address: Div. Hematol., Univ. Lausanne, 1011-CHUV Lausanne, Switzerland**Switzerland
Journal: Journal of Cell Biology 136 (4): p 945-956 1997 1997
ISSN: 0021-9525
Document Type: Article
Record Type: Abstract
Language: English

Abstract: ...role of L-selectin in monocyte adhesion to arterial endothelium, a key pathogenic event of **atherosclerosis**. Using a nonstatic (rotation) adhesion assay, we observed that monocyte binding to bovine aortic endothelium at 4 degree C increased four to nine times upon endothelium activation with tumor necrosis **factor** (TNF)-alpha. mAb-blocking experiments demonstrated that L-selectin mediates a major part (64 +- 18... ...binding to cytokine-activated and, unexpectedly, unactivated aortic cells. Soluble L-selectin binding was completely **inhibited** by anti-L-selectin mAb or by aortic cell exposure to trypsin. Experiments with cycloheximide, chlorate, or neuraminidase showed that protein synthesis and sulfate groups, but not **sialic** acid residues, were essential for L-selectin counterreceptor function. Moreover, heparin lyases partially **inhibited** soluble L-selectin binding to cytokine-activated aortic cells, whereas a stronger **inhibition** was seen with unstimulated endothelial cells, suggesting that cytokine activation could induce the expression of... ...for L-selectin, distinct from heparan sulfate proteoglycans. Under flow, endothelial cell treatment with heparinase **inhibited** by apprx 80% monocyte attachment to TNF-alpha-activated aortic endothelium, indicating a major role...
Descriptors:
Miscellaneous Terms: ...**ATHEROSCLEROSIS**; ... ...TUMOR NECROSIS **FACTOR**-ALPHA

7/3,K/5 (Item 5 from file: 5) **Links**
Fulltext available through: USPTO Full Text Retrieval Options SCIENCEDIRECT
Biosis Previews(R)

0008779809 **Biosis No.:** 199395082075
Carbohydrate residues modulate the activation of coagulation factor X

Author: Sinha Uma (Reprint); Wolf David L
Author Address: COR Therapeutics Inc., 256 E. Grand Ave., South San Francisco, CA 94080, USA**USA
Journal: Journal of Biological Chemistry 268 (5): p 3048-3051 1993
ISSN: 0021-9258
Document Type: Article
Record Type: Abstract
Language: English
Carbohydrate residues modulate the activation of coagulation factor X

Abstract: Factor X is a plasma protein involved in both the intrinsic and extrinsic pathways of blood... ...instrumental in regulating biological activity, the role of glycosylation in the function and properties of factor X has not been previously investigated. We utilized lectin binding and glycosidase treatment to investigate the functional role of carbohydrates on the activation peptide of factor X. Sambucus nigra agglutinin, a lectin that binds to sialic acid terminally linked alpha(2-6) to galactose or N-acetylgalactosamine inhibits activation of human factor X in a dose-dependent manner. Inhibition of activation was observed for both intrinsic (factor IXa/VIIIa) and extrinsic (factor VIIa/tissue factor) pathway complexes. In accordance with this, selective removal of sialic acid residues on the activation peptide of factor X by neuraminidase also results in a drastic reduction of activation of the zymogen by these complexes. Corresponding reduction of activity in classical clotting assays (activated partial thromboplastin time and prothrombin time) also agrees with this observation. These results suggest a possible role of N-linked carbohydrates in the activation of factor X.
Registry Numbers: ...FACTOR X
Descriptors:
Chemicals & Biochemicals: FACTOR X...

7/3,K/6 (Item 6 from file: 5) **Links**
Fulltext available through: ScienceDirect (Elsevier) USPTO Full Text Retrieval Options SCIENCEDIRECT
Biosis Previews(R)

0008390694 **Biosis No.:** 199294092535

HEPARIN COFACTOR II DEFICIENCY IN THE ELDERLY COMPARISON WITH ANTITHROMBIN III

Author: KARIO K (Reprint); MATSUO T; KOBAYASHI H
Author Address: DEP INTERNAL MED, HYOGO PREFECTURAL AWAJI HOSP, SUMOTO 656, JPN**JAPAN
Journal: Thrombosis Research 66 (5): p 489-498 1992
ISSN: 0049-3848
Document Type: Article
Record Type: Abstract
Language: ENGLISH

Abstract: ...HC II levels correlated significantly with AT III levels and with acute phase reactants including **sialic** acid, fibrinogen, and PAI-1. HC II levels also correlated with **factor** VII, plasminogen, .alpha.2 -plasmin **inhibitor**, serum lipid, pseudocholinesterase, and albumin levels. These correlations were also found for AT III except... ...also showed the same tendency. These results indicated a decrease in the reserve capacity to **inhibit** thrombin generation at sites of **atherosclerosis** in response to trigger events. The deficiency of two major antithrombin factors in the elderly...
Descriptors: HUMAN MALNUTRITION ACUTE PHASE REACTANT PSEUDOCHOLINESTERASE ALBUMIN **ATHEROSCLEROSIS** AGE EFFECT

7/3,K/7 (Item 7 from file: 5) **Links**

Fulltext available through: ScienceDirect (Elsevier) USPTO Full Text Retrieval Options SCIENCEDIRECT

0007106589 **Biosis No.:** 199089024480

ISOLATION AND CHARACTERIZATION OF FIBRINOGEN-CLOTTING ENZYME FROM VENOM OF THE SNAKE LACHESIS-MUTA-MUTA PERUVIAN BUSHMASTER

Author: YARLEQUE A (Reprint); CAMPOS S; ESCOBAR E; LAZO F; SANCHEZ N; HYSLOP S; MARSH N A; BUTTERWORTH P J; PRICE R G
Author Address: DEP PHYSIOL, KING'S COLL LONDON, KENSINGTON CAMPUS, CAMPDEN HILL RD, LONDON W8 7AH, UK**UK

Journal: Toxicon 27 (11): p 1189-1198 1989
ISSN: 0041-0101
Document Type: Article
Record Type: Abstract
Language: ENGLISH

ISOLATION AND CHARACTERIZATION OF FIBRINOGEN-CLOTTING ENZYME FROM VENOM OF THE SNAKE LACHESIS-MUTA-MUTA PERUVIAN BUSHMASTER

Abstract: A fibrinogen-clotting enzyme from the venom of the Peruvian bushmaster snake was purified to homogeneity by gel... ...content was 13.4%, comprised of 3.4% hexose, 8.7% hexosamine and 1.3% sialic acid. The enzyme was active against the synthetic amide substrate .alpha.-N-benzoyl-DL-arginine... ...The enzyme released fibrinopeptide A rapidly from purified human fibrinogen and fibrinopeptide B more slowly. Factor XIII was not activated and the clotting activity was not inhibited by heparin. A dose of 50 .mu.g/kg brought about defibrinogenation in anaesthetized rats...

7/3,K/8 (Item 8 from file: 5) **Links**
Fulltext available through: USPTO Full Text Retrieval Options SCIENCEDIRECT
Biosis Previews(R)

0006085504 **Biosis No.:** 198885054395
THE FUNCTION OF THE HUMAN FACTOR V CARBOHYDRATE MOIETY IN BLOOD COAGULATION

Author: BRUIN T (Reprint); STURK A; CATE J W T; CATH M
Author Address: AFDELING HEMATOLOGIE, AKADEMISCH MEDISCH CENTRUM, UNIV AMSTERDAM, MEIBERGDREEF 9, NL-1105-AZ AMSTERDAM, NETHERLANDS**NETHERLANDS
Journal: European Journal of Biochemistry 170 (1-2): p 305-310 1987
ISSN: 0014-2956
Document Type: Article
Record Type: Abstract
Language: ENGLISH
THE FUNCTION OF THE HUMAN FACTOR V CARBOHYDRATE MOIETY IN BLOOD COAGULATION

Abstract: Human factor V was subjected to desialation and deglycosylation to investigate the function of the molecular carbohydrate moiety. Removal of 90% of the sialic acid residues resulted in a 1.5-2-fold increase in clotting activity, and up to 70% deglycosylation in a concurrent decrease in clotting activity. Desialation had no effect on thrombin-induced activation, whereas deglycosylated factor V activation was impaired. Lectin-blot experiments with sialic -acid-specific Limax flavus agglutinin (LFA), galactose-specific Ricinus communis agglutinin (RCA-II) and mannose-specific concanavalin A on thrombin-induced factor V fragments revealed the presence of carbohydrate residues in fragments B, C1, D and F1F2. Interestingly, sialic acid was present in C1 whilst galactose was not detectable. Fragment F1F2 contained terminal galactose residues. LFA and RCA-II inhibited the procoagulant activity of native factor V and of desialated factor V respectively. These investigations distinctly indicate the important role of the human factor V carbohydrate moiety in the process of blood coagulation.

7/3,K/9 (Item 9 from file: 5) **Links**
Fulltext available through: ScienceDirect (Elsevier) USPTO Full Text Retrieval Options SCIENCEDIRECT
Biosis Previews(R)

0004265084 **Biosis No.:** 198478000491
EFFECTS OF ENZYMATIC DEGLYCOSYLATION ON THE BIOLOGICAL ACTIVITIES OF HUMAN THROMBIN AND ANTI THROMBIN

Author: ROSENFELD L (Reprint); DANISHEFSKY I
Author Address: DEP BIOCHEMISTRY, NEW YORK MED COLL, VALHALLA, NY 10595, USA**USA
Journal: Archives of Biochemistry and Biophysics 229 (1): p 359-367 1984
ISSN: 0003-9861
Document Type: Article
Record Type: Abstract
Language: ENGLISH

Abstract: ...beta.-N-acetylglucosaminidase, and endo-.beta.-N-acetylglucosaminidase D resulted in the successive removal of **sialic** acid, galactose, N-acetylglucosamine and mannose, and more N-acetylglucosamine residues. The products obtained after... ...expected from the cleavage of the sugar moieties. The modified thrombins did not lose fibrinogen-**clotting** activity, amidolytic activity, nor the ability to form complexes with antithrombin. Asialothrombin and asialoagalactothrombin caused... ...removal of sugars from antithrombin retained thrombin-neutralizing activity. In the presence of heparin the **inhibition** of thrombin as well as **factor** Xa was enhanced. The sugar residues of thrombin and antithrombin are not required for the formation of enzyme-**inhibitor** complexes or for the other activities that were measured.
Registry Numbers: ...**FACTOR**-XA
Descriptors: PLATELET HEPARIN HEMATOLOGIC-DRUG **FACTOR**-XA NEURAMINIDASE BETA GALACTOSIDASE BETA-N ACETYL GLUCOSAMINIDASE ENDO-BETA-N ACETYL GLUCOSAMINE MANNOSE GALACTOSE **SIALIC**-ACID FIBRINOGEN **CLOTTING** ACTIVITY AMIDOLYTIC ACTIVITY COMPLEX FORMATION **INHIBITION**/
Descriptors:
Chemicals & Biochemicals: ...**FACTOR**-XA

7/3,K/10 (Item 10 from file: 5) **Links**
Fulltext available through: USPTO Full Text Retrieval Options SCIENCEDIRECT
Biosis Previews(R)

0003217004 **Biosis No.:** 198171035963
FACTOR-VIII VON WILLEBRAND PROTEIN MODIFICATION OF ITS CARBOHYDRATE CAUSES REDUCED BINDING TO PLATELETS

Author: KAO K-J (Reprint); PIZZO S V; MCKEE P A
Author Address: HOWARD HUGHES MED INST LAB, DEP MED, DUKE UNIV MED CENT, DURHAM, NC 27710, USA**USA
Journal: Journal of Biological Chemistry 255 (21): p 10134-10139 1980
ISSN: 0021-9258
Document Type: Article
Record Type: Abstract
Language: ENGLISH
FACTOR-VIII VON WILLEBRAND PROTEIN MODIFICATION OF ITS CARBOHYDRATE CAUSES REDUCED BINDING TO PLATELETS

Abstract: An abnormality in the carbohydrate structure of the blood-clotting glycoprotein, human factor VIII/von Willebrand factor (FVIII/ vWF), may give rise to the hemorrhagic disorder known as von Willebrand's disease. The sequential removal of sialic acid and galactose from FVIII/vWF causes a progressive diminution in the ability of human FVIII/vWF to support ristocetin-induced platelet aggregation. Experiments aimed at defining how modifications of carbohydrate side chains of FVIII/vWF protein cause a loss of platelet-aggregating activity are presently reported. The ristocetin cofactor activity of human FVIII/vWF was reduced to 39% after removal of 74% of the sialic acid by protease-free neuraminidase. Ristocetin cofactor activity was reduced further to 19% after oxidation of 39% of the galactose residues of asialo-FVIII/vWF by galactose oxidase treatment and was restored to 33% after potassium borohydride reduction of galactose-oxidized asialo-FVIII/vWF. The receptor-binding potency and affinity of each form of FVIII/vWF derivative was determined by employing a FVIII/vWF receptor-binding assay. The effective concentration to inhibit 50% binding of 0.2 .mu.g/ml of 125I-FVIII/vWF to 5 .times. 106 platelets and the binding Kd for each form of FVIII/vWF are: 2.0 .mu.g/ml, 1.1 nM for native FVIII/vWF; 14.8 .mu.g/ml, 12.5 nM for asialo-FVIII/vWF ; 66 .mu.g/ml, 53.8 nM for galactose-oxidized asialo-FVIII/vWF; and 30 .mu.g/ml, 18.9 nM, for KBH4-reduced galactose-oxidized asialo-FVIII/ vWF. A linear correlation between the log of receptor-binding affinity and the log of ristocetin cofactor activity was observed. The diminished ristocetin cofactor activity of FVIII/vWF having modified carbohydrate side chains results from reduced binding affinity for platelet FVIII/vWF receptors. The binding of FVIII/vWF to platelet receptors may be functionally relevant with respect to ristocetin cofactor activity.
Registry Numbers: ...FACTOR-VIII... ...FACTOR-VIII... ...FACTOR-VIII
Descriptors: VON WILLEBRANDS DISEASE NEURAMINIDASE GALACTOSE OXIDASE FACTOR-VIII VON WILLEBRAND FACTOR RISTOCETIN COFACTOR AGGREGATION
Descriptors:
Chemicals & Biochemicals: FACTOR-VIII... ...FACTOR-VIII... ...FACTOR-VIII

7/3,K/11 (Item 1 from file: 34) **Links**
Fulltext available through: USPTO Full Text Retrieval Options SCIENCEDIRECT
SciSearch(R) Cited Ref Sci

15511928 **Genuine Article#:** 080RP **No. References:** 50
Reactive oxygen species mediates disialoganglioside GD3-induced inhibition of ERK1/2 and matrix metalloproteinase-9 expression in vascular smooth muscle cells

Author: Moon SK; Kang SK; Kim CH (REPRINT)
Corporate Source: Sungkyunkwan Univ,Dept Sci Biol, Mol & Cellular Glycobiol Unit,Chunchun Dong 300/Suwon 440746//South Korea/ (REPRINT); Sungkyunkwan Univ,Dept Sci Biol, Mol & Cellular Glycobiol Unit,Suwon 440746//South Korea/ (chkimbio@daum.net)
Journal: FASEB JOURNAL , 2006 , V 20 , N9 (JUL) , P 1387-1395
ISSN: 0892-6638 **Publication date:** 20060700
Publisher: FEDERATION AMER SOC EXP BIOL , 9650 ROCKVILLE PIKE, BETHESDA, MD 20814-3998 USA
Language: English **Document Type:** ARTICLE (ABSTRACT AVAILABLE)
Abstract: **Sialic** acid containing glycosphingolipids (gangliosides) are thought to play important roles in the function of various biological phenomena such as **atherosclerosis**. We have previously shown that the overexpression of the disialoganglioside (GD3) synthase gene effectively suppresses... ...VSMC). However, the issue of how the overexpression of GD3 synthase gene results in the **inhibition** of cellular responses in VSMC remains unclear. The findings herein demonstrate that overexpression of the... ...gene overexpression on VSMC proliferation and cell cycle regulation in response to platelet-derived growth **factor** (PDGF). In addition, we found that treatment with antioxidants reversed the decreased matrix metalloproteinase-9... ...in GD3 synthase gene-mediated VSMC phenotypic changes that may contribute to plaque instability in **atherosclerosis**.
Identifiers-- ...MITOCHONDRIAL PERMEABILITY TRANSITION; SIGNALING TRANSDUCTION PATHWAY; NECROSIS-**FACTOR**-ALPHA; GD3 GANGLIOSIDE; DNA DAMAGE; **ATHEROSCLEROSIS;** APOPTOSIS; GROWTH; GLYCOSPHINGOLIPIDS; PROLIFERATION

7/3,K/12 (Item 2 from file: 34) **Links**

Fulltext available through: ScienceDirect (Elsevier) USPTO Full Text Retrieval Options SCIENCEDIRECT

SciSearch(R) Cited Ref Sci

14793520 **Genuine Article#:** 006GD **No. References:** 41

Colominic acid inhibits the proliferation of cultured bovine aortic endothelial cells and injures their monolayers: Cell density-dependent effects prevented by sulfation

Author: Yamamoto C; Morita Y; Yamaguchi S; Hayashi T; Kaji T (REPRINT)

Corporate Source: Hokuriku Univ,Fac Pharmaceut Sci, Dept Environm Hlth,Ho 3 Kanagawa machi/Kanazawa/Ishikawa 9201181/Japan/ (REPRINT); Hokuriku Univ,Fac Pharmaceut Sci, Dept Environm Hlth,Kanazawa/Ishikawa 9201181/Japan/; Marukin Bio Inc,Uji/Kyoto 6110013/Japan/; Toyama Med & Pharmaceut Univ,Fac Pharmaceut Sci, Dept Pharmacognosy,Toyama 9300194//Japan/ (t-kaji@hokuriku-u.ac.jp)

Journal: LIFE SCIENCES , 2006 , V 78 , N8 (JAN 18) , P 844-850

ISSN: 0024-3205 **Publication date:** 20060118

Publisher: PERGAMON-ELSEVIER SCIENCE LTD , THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, ENGLAND

Language: English **Document Type:** ARTICLE (ABSTRACT AVAILABLE)

Abstract: Colominic acid (CA), produced by Escherichia coli K1, is a polymer of **sialic** acid linked through alpha (2 -> 8) glycosidic linkages. Although there are several studies on the... ...monolayer maintenance of bovine aortic endothelial cells in culture. The results indicate that CA potently **inhibits** the proliferation of sparse endothelial cells without nonspecific cell damage. The **inhibitory** effect of CA was markedly stronger than those of sodium spirulan and calcium spirulan, known polysaccharides that **inhibit** endothelial cell proliferation. On the other hand, in dense endothelial cells, CA induced nonspecific cell... ...results indicate that CA has two distinct effects on vascular endothelial cells: one is the **inhibition** of proliferation when the cell density is low, and the other is the nonspecific cytotoxicity... ...prevented by sulfation of the CA chains. Therefore, it is concluded that CA not only **inhibits** the proliferation of sparse endothelial cells without nonspecific cell damage but also injures dense cells...

Identifiers-- ...FIBROBLAST-GROWTH-**FACTOR**; SODIUM SPIRULAN; SIALIC-ACID; IN-VITRO; ANTITHROMBIN-III; CALCIUM SPIRULAN; HEPARIN; PLATENSIS; TYPE-1; **ATHEROSCLEROSIS**

7/3,K/13 (Item 3 from file: 34) **Links**
Fulltext available through: USPTO Full Text Retrieval Options SCIENCEDIRECT
SciSearch(R) Cited Ref Sci

13498119 **Genuine Article#:** 886ME **No. References:** 51
Effects of changes in body weight and insulin resistance on inflammation and endothelial function in morbid obesity after bariatric surgery

Author: Vazquez LA; Pazos F (REPRINT) ; Berrazueta JR; Fernandez-Escalante C; Garcia-Unzueta MT; Freijanes J; Amado JA
Corporate Source: Endocrine Unit,POB 2257/Santander 39080//Spain/ (REPRINT); Univ Cantabria,Univ Hosp Marques de Valdecilla, Endocrine Unit,E-39005 Santander//Spain/; Univ Cantabria,Univ Hosp Marques de Valdecilla, Serv Cardiol,E-39005 Santander//Spain/; Univ Cantabria,Univ Hosp Marques de Valdecilla, Surg Serv,E-39005 Santander//Spain/ (endptf@humv.es)
Journal: JOURNAL OF CLINICAL ENDOCRINOLOGY AND METABOLISM , 2005 , V 90 , N1 (JAN) , P 316-322
ISSN: 0021-972X **Publication date:** 20050100
Publisher: ENDOCRINE SOC , 8401 CONNECTICUT AVE, SUITE 900, CHEVY CHASE, MD 20815-5817 USA
Language: English **Document Type:** ARTICLE (ABSTRACT AVAILABLE)
Abstract: ...after weight loss following bariatric surgery. Circulating levels of E-selectin, P-selectin, plasminogen activator **inhibitor**-1, and von Willebrand **factor**, which were higher than those in the control group, decreased significantly after surgery. Plasma vascular... ...All inflammatory markers were higher in morbidly obese patients. After surgery, C-reactive protein and **sialic** acid diminished, whereas circulating levels of IL-6, TNF-alpha, and its soluble receptors did... ...changes in adiposity and SI and changes in C-reactive protein and between changes in **sialic** acid and changes in endothelial function. In conclusion, a marked improvement in SI, endothelial function...
Identifiers-- ...NECROSIS-**FACTOR**-ALPHA; REACTIVE PROTEIN-LEVELS; ACUTE-PHASE PROTEINS; **FACTOR**-KAPPA-B; NITRIC-OXIDE; **ATHEROSCLEROSIS** RISK; POSTMENOPAUSAL WOMEN; ADHESION MOLECULE-1; METABOLIC SYNDROME; MONONUCLEAR-CELLS

7/3,K/14 (Item 4 from file: 34) **Links**

Fulltext available through: ScienceDirect (Elsevier) USPTO Full Text Retrieval Options SCIENCEDIRECT

SciSearch(R) Cited Ref Sci

12889260 **Genuine Article#:** 831OX **No. References:** 40

Overexpression of GD3 synthase induces apoptosis of vascular endothelial ECV304 cells through downregulation of Bcl-2

Author: Ha KT; Lee YC; Kim CH (REPRINT)

Corporate Source: Dongguk Univ,MOST, Natl Res Lab Glycobiol,Kyungju 780714/Kyungbuk/South Korea/ (REPRINT); Dongguk Univ,MOST, Natl Res Lab Glycobiol,Kyungju 780714/Kyungbuk/South Korea/; Dongguk Univ,Coll Oriental Med, Dept Biochem & Mol Biol,Kyungju 780714/Kyungbuk/South Korea/; Dong A Univ,Fac Biotechnol,Pusan 604714//South Korea/ (chkimbio@dongguk.ac.kr)

Journal: FEBS LETTERS , 2004 , V 568 , N1-3 (JUN 18) , P 183-187

ISSN: 0014-5793 **Publication date:** 20040618

Publisher: ELSEVIER SCIENCE BV , PO BOX 211, 1000 AE AMSTERDAM, NETHERLANDS

Language: English **Document Type:** ARTICLE (ABSTRACT AVAILABLE)

Abstract: ...that the downregulation of Bcl-2 by overexpression of CMP-NeuAc:GM3 alpha-2,8-**sialyltransferase** (GD3 synthase) results in an accelerated apoptosis in vascular endothelial cells (ECV304), as evidenced by... ...CREB) was reduced by GD3 synthase overexpression. Moreover, the activation of CREB as a transcriptional **factor** was also **inhibited**, as evidenced by electrophoretic mobility shift assay. Therefore, we conclude that GD3 synthase has an...

Identifiers-- ...ELEMENT-BINDING PROTEIN; SMOOTH-MUSCLE-CELLS; EXPRESSION CLONING; GANGLIOSIDE; ACTIVATION; DEATH; **ATHEROSCLEROSIS;** ANGIOGENESIS; INHIBITION; MECHANISMS

7/3,K/15 (Item 1 from file: 71) **Links**
Fulltext available through: ScienceDirect (Elsevier) USPTO Full Text Retrieval Options SCIENCEDIRECT ELSEVIER BIOBASE

00659218 97165980
Binding of the von Willebrand factor A1 domain to histone

Ward C.M.; Tetaz T.J.; Andrews R.K.; Berndt M.C.
Address: Dr. M.C. Berndt, Baker Medical Research Institute, P.O. Box 348, Prahran , Australia
Email: michael.berndt@baker.edu.au
Journal : Thrombosis Research , 86/6 (469-477) , 1997 , United Kingdom
PUBLICATION DATE: 19970000
CODEN: THBRA
ISSN: 0049-3848
Publisher Item Identifier: S0049384897000960
Document Type: Article
Languages: English **Summary Languages:** English
No. of References: 34
Binding of the von Willebrand factor A1 domain to histone

Activation of the von Willebrand Factor (vWF) A1 domain is a critical factor in regulating the interaction of vWF with its platelet membrane receptor, the glycoprotein (GP) Ib-IX-V complex. This activation controls vWF-dependent platelet adhesion at high shear. The vWF-GP Ib-IX-V interaction is induced in vivo by exposure of platelet-rich plasma to high shear force, or by association of vWF with one or more unidentified components of the subendothelial matrix. In vitro, soluble vWF is activated to bind to platelets by nonphysiological modulators, such as the bacterial glycopeptide, ristocetin, or the snake venom protein, botrocetin, or by removal of negatively-charged sialic acid residues. Analysis of vWF modulators and the very marked charge asymmetry of amine acid sequences within the A1 domain has led to an electrostatic model for vWF modulation. Endothelial membrane/matrix and detergent-soluble fractions of human placenta were screened for the ability to bind vWF by electrophoresis of extracts on SDS-polyacrylamide gels, electrotransferring to nitrocellulose and probing with fluid-phase sup 1sup 2sup 5I-labeled vWF or a 39/34-kDa vWF fragment (Leu-480-Gly-718) that encompasses the A1 domain. In the course of these studies, it was found that both vWF and the 39/34-kDa vWF fragment bound strongly to historic. Purified soluble histone also bound vWF since, like ristocetin, it induced vWF flocculation. Histone binding to vWF did not activate or inhibit vWF binding to platelets. While the vWF-histone interaction has no conceivable physiological role, it suggests that binding to the A1 domain of vWF alone is insufficient to modulate vWF adhesive activity. This implies that specific interactions of the vWF A1 domain with either ristocetin or botrocetin are required for GP Ib-IX-V recognition...

DESCRIPTORS:
von Willebrand Factor; histone

CLASSIFICATION CODE AND DESCRIPTION:
Modlecular Sequence Databank Number: ...Clotting factors
82.12.2.3 - PROTEIN BIOCHEMISTRY

7/3,K/16 (Item 1 from file: 73) **Links**
Fulltext available through: USPTO Full Text Retrieval Options SCIENCEDIRECT
EMBASE

13626776 **EMBASE No:** 2006107550
Molecular diversity in venom from the Australian brown snake, Pseudonaja textilis

Birrell G.W.; Earl S.; Masci P.P.; de Jersey J.; Wallis T.P.; Gorman J.J.; Lavin M.F.
M.F. Lavin, The Queensland Cancer Fund Research Unit, The Queensland Inst. of Medical Research, P.O. Royal Brisbane Hospital, Brisbane, QLD 4029 Australia
Author Email: martin.lavin@qimr.edu.au
Molecular and Cellular Proteomics (MOL. CELL. PROTEOMICS) (United States) 2006 , 5/2 (379-389)
CODEN: MCPOB **ISSN:** 1535-9476
Document Type: Journal ; Article
Language: ENGLISH **Summary Language:** ENGLISH
Number Of References: 45

...bite in Australia. This venom is known to contain a prothrombin activator complex, serine proteinase **inhibitors**, various phospholipase ASUB2s, and pre- and postsynaptic neurotoxins. In this study, we performed a proteomic... ...of glycoproteins with N-linked sugars that include glucose/mannose, N-acetylgalactosamine, N-acetylglucosamine, and **sialic** acids. Additionally there are multiple isoforms of mammalian coagulation factors that comprise a significant proportion of the venom. Indeed two of the identified proteins, a procoagulant and a plasmin **inhibitor**, are currently in development as human therapeutic agents. (c) 2006 by The American Society for...
DRUG DESCRIPTORS:
...acetylglucosamine--endogenous compound--ec; n acetylgalactosamine --endogenous compound--ec; sialic acid--endogenous compound--ec; blood **clotting factor**--endogenous compound--ec; isoprotein --endogenous compound--ec; procoagulant--endogenous compound--ec; plasmin inhibitor--endogenous compound...

7/3,K/17 (Item 2 from file: 73) **Links**

Fulltext available through: ScienceDirect (Elsevier) USPTO Full Text Retrieval Options SCIENCEDIRECT

06194621 **EMBASE No:** 1995196114

Gender differences of disturbed hemostasis related to fasting insulin level in healthy very elderly Japanese aged >=75 years

Kario K.; Matsuo T.; Kobayashi H.; Sakata T.; Miyata T.; Shimada K.
Department of Internal Medicine, Awaji-Hokudan Public Clinic, 480-2 Ikuha, Hokudan,Tsuna, Hyogo 656-16 Japan

Atherosclerosis (ATHEROSCLEROSIS) (Ireland) 1995 , 116/2 (211-219)
CODEN: ATHSB **ISSN:** 0021-9150
Document Type: Journal ; Article
Language: ENGLISH **Summary Language:** ENGLISH

...relationship between fasting insulin level and various hemostatic factors, including fibrinolytic factors (active plasminogen activator **inhibitor**-1 (PAI-1), tissue type plasminogen activator (tPA)-PAI-1 complex, plasmin-alphainf 2-plasmin **inhibitor** (PIG), and D-dimer), coagulation factors (activated **factor** VII, **factor** VII coagulant activity and antigen, **factor** VIII, **factor** X, and fibrinogen), coagulation **inhibitors** (antithrombin III, heparin cofactor II, and protein C), and an acute phase marker (**sialic** acid) in 102 healthy individuals aged >=75 years (46 men and 56 women). Active PAI... ...and hemostatic abnormalities, with the insulin level being positively correlated with coagulation factors in men (**factor** VIII activity: $r = 0.422$, $P < 0.01$; **factor** VII activity: $r = 0.386$, $P < 0.01$) and with hypofibrinolysis in women (active PAI... ...$r = 0.549$, $P < 0.0001$). Insulin levels were positively correlated with the levels of **factor** VII antigen and **factor** VII activity in men ($P < 0.01$), but there was no correlation with activated **factor** VII levels. The fasting insulin level was also correlated with the levels of heparin cofactor II and **sialic** acid in men ($P < 0.05$). However, other hemostatic factors were not related to the... ...either sex. Multiple linear regression analysis disclosed that insulin showed an independent positive correlation with **factor** VIII activity in men ($P < 0.001$) and with active PAI-1 in women (P...

DRUG DESCRIPTORS:

* blood **clotting factor** 7; *blood **clotting factor** 8; *insulin--endogenous compound--ec

MEDICAL DESCRIPTORS:

* **atherosclerosis**; *insulin blood level

CAS Registry Number: 9001-25-6 (blood **clotting factor** 7); 9001-27-8 (blood **clotting factor** 8); 9004-10-8 (insulin)

7/3,K/18 (Item 3 from file: 73) **Links**
Fulltext available through: USPTO Full Text Retrieval Options SCIENCEDIRECT
EMBASE

06145524 **EMBASE No:** 1995177680
Induction of tissue factor on monocytes by adhesion to endothelial cells

Lo S.K.; Cheung A.; Zheng Q.; Silverstein R.L.
Division of Hematology and Oncology, Cornell University Medical College,New York, NY 10021 United States
Journal of Immunology.(J. IMMUNOL.) (United States) 1995 , 154/9 (4768-4777)
CODEN: JOIMA **ISSN:** 0022-1767
Document Type: Journal ; Article
Language: ENGLISH **Summary Language:** ENGLISH
Induction of tissue factor on monocytes by adhesion to endothelial cells

Activated monocytes express tissue factor (TF), a protein that is important in the pathogenesis of thrombotic disorders. We sought to... ...TNF-treated EC had no effect. An anti-E-selectin mAb (H18/7) exerted partial inhibition, whereas anti-VCAM-1, ICAM-1, and CD11/CD18 mAbs had no inhibition. Synthetic Lewis X (Le(x)) oligosaccharide partially blocked TF induction, whereas sialyl-Le(x) (sLe(x)) oligosaccharide had no effect. Cross-linking Le(x) on monocytes, but...
DRUG DESCRIPTORS:
*** bacterium lipopolysaccharide; *blood clotting factor 10; * blood clotting factor 7; *procoagulant; *thromboplastin**
CAS Registry Number: 9001-29-0 (blood clotting factor 10); 9001-25-6 (blood clotting factor 7); 9035-58-9 (thromboplastin); 128875-25-2 (endothelial leukocyte adhesion molecule 1); 126547-89...

7/3,K/19 (Item 4 from file: 73) **Links**
Fulltext available through: USPTO Full Text Retrieval Options SCIENCEDIRECT
EMBASE

05857092 **EMBASE No:** 1994273057
The role of human factor X activation peptide in activation of factor X by factor IXa

Iino M.; Takeya H.; Nishioka J.; Nakagaki T.; Tamura K.; Suzuki K.
Dept Molecular Biol Genetic Disease, Mie University School of Medicine,Tsu, Mie 514 Japan
Journal of Biochemistry (J. BIOCHEM.) (Japan) 1994 , 116/2 (335-340)
CODEN: JOBIA **ISSN:** 0021-924X
Document Type: Journal ; Article
Language: ENGLISH **Summary Language:** ENGLISH
The role of human factor X activation peptide in activation of factor X by factor IXa

We studied the interaction of factor X activation peptide (XAP) with factor IXa and factor Xa and the effect of XAP on factor IXa-catalyzed activation of factor X. XAP associated with factor Xa in the presence of 5 mM Casup 2sup + was dissociated from factor Xa by gel chromatography using Ultrogel AcA54 in 5 mM EDTA, or in 8 M urea-0.1% SDS. An exogenous isolated XAP inhibited the factor IXa-catalyzed factor X activation both in the presence and absence of factor VIIIa. 4-Amidinophenylmethylsulfonyl (aPMS)-factor Xa independent of XAP also inhibited the factor X activation more effectively than XAP alone in the presence of factor VIIIa. However, aPMS-factor Xa independent of XAP hardly inhibited the factor X activation in the absence of factor VIIIa. The binding of sup 1sup 2sup 5I-labeled factor X to the aPMS-factor IXa fixed to a microwell plate was inhibited by unlabeled factor X or XAP, but not by aPMS- factor Xa with or without XAP. Factor IXa directly bound to XAP and aPMS-factor Xa with XAP, but did not bind to aPMS- factor Xa without XAP. These findings suggest that the region of XAP in factor X directly interacts with factor IXa, and factor Xa region other than XAP interacts with factor VIIIa. Desialation or deletion of N-linked carbohydrates of XAP reduced the inhibitory activity of XAP for the factor X activation by factor IXa to approximately 50% of that of the intact XAP. This suggests that the sialic acids in the carbohydrate chains of the XAP region partly contribute to the interaction with factor IXa during its activation.
DRUG DESCRIPTORS:
*** blood clotting factor 10--endogenous compound--ec; *blood clotting factor 9a--endogenous compound--ec blood clotting factor 10a--endogenous compound--ec; blood clotting factor 8a; calcium ion; carbohydrate--endogenous compound--ec; edetic acid; peptide--endogenous compound--ec; sialic acid...**
CAS Registry Number: 9001-29-0 (blood clotting factor 10); 72162-96-0... ...9002-05-5 (blood clotting factor 10a); 14127-61-8 (calcium ion); 150-43-6...

7/3,K/20 (Item 5 from file: 73) **Links**
Fulltext available through: ScienceDirect (Elsevier) USPTO Full Text Retrieval Options SCIENCEDIRECT
EMBASE

04382970 **EMBASE No:** 1990271054
Lectin affinity chromatography of proteins bearing O-linked oligosaccharides: Application of jacalin-agarose

Hortin G.L.; Trimpe B.L.
Department of Pediatrics, Washington University School of Medicine, St. Louis, MO 63110 United States
Analytical Biochemistry (ANAL. BIOCHEM.) (United States) 1990 , 188/2 (271-277)
CODEN: ANBCA **ISSN:** 0003-2697
Document Type: Journal ; Article
Language: ENGLISH **Summary Language:** ENGLISH

...a variety of glycoproteins known to contain typical O-linked oligosaccharides, including human IgA, C1 **inhibitor**, chorionic gonadotropin, plasminogen, bovine protein Z, bovine coagulation **factor** X, and fetuin. These proteins were eluted from columns of jacalin-agarose specifically by alpha... ...deoxygalactopyranoside), in O-linked oligosaccharides of these proteins, was not prevented by the presence of **sialic** acids. Affinity of oligosaccharides for jacalin did appear to be reduced by occurrence of **sialic** acids as it was found that higher concentrations of melibiose were required to elute asialofetuin...
DRUG DESCRIPTORS:
blood **clotting factor** 10; chorionic gonadotropin; fetuin; immunoglobulin a
CAS Registry Number: 9001-29-0 (blood **clotting factor** 10); 9002-61-3 (chorionic gonadotropin)

7/3,K/21 (Item 6 from file: 73) **Links**
Fulltext available through: ScienceDirect (Elsevier) USPTO Full Text Retrieval Options SCIENCEDIRECT
EMBASE

03718711 **EMBASE No:** 1988168147

Microheterogeneity of plasma glycoproteins heparin cofactor II and antithrombin III and their carbohydrate analysis

Kim Y.-S.; Lee K.-B.; Linhardt R.J.
Divison of Medicinal and Natural Products Chemistry, College of Pharmacy, University of Iowa, Iowa City, IA 52242 United States
Thrombosis Research (THROMB. RES.) (United States) 1988 , 51/1 (97-104)
CODEN: THBRA **ISSN:** 0049-3848
Document Type: Journal
Language: ENGLISH **Summary Language:** ENGLISH

Antiythrombin III is the most important protease **inhibitor** in the blood coagulation cascade. Its activity results from the formation of covalent complexes with **Factor** Xa and thrombin (FIIa). The rate of this **inhibition** is accelerated up to 2,000-fold in the presence of catalyst, heparin. ATIII is... ...Heparin cofactor II (HCII) is also a glycoprotein, which is antigenically distinct from ATIII and **inhibits** only FIIa in the presence of heparin. Its carbohydrate structure and isoelectric point have not... ...microgram quantities of glycoprotein, to determine the concentration of each neutral sugar, amino sugar and **sialic** acid residue. The carbohydrate composition of ATIII and HCII are reported.

MEDICAL DESCRIPTORS:
* blood **clotting**

7/3,K/22 (Item 7 from file: 73) **Links**
EMBASE

03285322 **EMBASE No:** 1986037899
Isolation and characterization of cancer procoagulant: A cysteine proteinase from malignant tissue

Falanga A.; Gordon S.G.
Department of Medicine, University of Colorado Health Sciences Center, Denver, CO 80262 United States
Biochemistry (BIOCHEMISTRY) (United States) 1985 , 24/20 (5558-5567)
CODEN: BICHA
Document Type: Journal
Language: ENGLISH

...000 and the isoelectric point 4.8. The proteinase activity of cancer procoagulant directly activated **factor** X, in the absence of **factor** VII, and was **inhibited** by 1 mM iodoacetamide and 0.1 mM mercury which are classic cysteine proteinase **inhibitors**. A carbohydrate analysis showed less than 1 mol of hexose or **sialic** acid/mol of protein. The amino acid analysis showed that serine (19.1%), glycine (18... ...amino acids. The amino acid composition of cancer procoagulant was substantially different than other known **factor** X activating proteinases or other cysteine proteinases including cathepsin B.
DRUG DESCRIPTORS:
* blood **clotting factor**; *cysteine proteinase; *procoagulant
amino acid; blood **clotting factor** 10; cathepsin b; glutamic acid; glycine; iodoacetamide; mercury; serine
CAS Registry Number: 37353-41-6 (cysteine proteinase); 65072-01-7 (amino acid); 9001-29-0 (blood **clotting factor** 10); 9047-22-7 (cathepsin b); 11070-68-1...

7/3,K/23 (Item 8 from file: 73) Links
EMBASE

03250054 **EMBASE No:** 1986047631
Von Willebrand's disease with spontaneous platelet aggregation induced by an abnormal plasma von Willebrand factor

Gralnick H.R.; Williams S.B.; McKeown L.P.; et al.
Hematology Service, Clinical Pathology Department, Clinical Center, National Institutes of Health, Bethesda, MD 20205 United States
Journal of Clinical Investigation (J. CLIN. INVEST.) (United States) 1985 , 76/4 (1522-1529)
CODEN: JCINA
Document Type: Journal
Language: ENGLISH
Von Willebrand's disease with spontaneous platelet aggregation induced by an abnormal plasma von Willebrand factor

...platelet aggregation (RIPA) at low ristocetin concentrations, (b) absence of the largest plasma von Willebrand factor (vWf) multimers, and (c) thrombocytopenia. The platelet-rich plasma of these patients aggregates spontaneously without the... ...measured by ATP release and alpha granule release as measured by beta-thromboglobulin and platelet factor 4 release. The SPA is totally inhibited by 5 mM EDTA, prostaglandin Iinf 2, and dibutyryl cyclic AMP, while it is only partially inhibited by 1 mM EDTA, acetylsalicylic acid, or apyrase. A monoclonal antibody directed against glycoprotein Ib (GPIb) and/ro a monoclonal antibody against the glycoprotein IIb/IIIa (GPIIb/IIIa) complex totally inhibits the SPA. The vWf was isolated from the plasma of one of these patients. The purified vWf induced platelet aggregation of normal platelets resuspended in either normal or severe vWd plasma, but the vWf did not induce platelet aggregation of normal platelets resuspended in afibrinognemic plasma. Sialic acid and galactose quantification of the patient's vWf revealed approximately a 50% reduction compared with normal vWf. These studies indicate that a form of vWd exists, which is characterized by SPA that is induced by the abnormal plasma vWf. The SPA is dependent on the presence of plasma fibrinogen, and the availability of the GPIb and the GPIIb/IIIa complex. In this variant form of vWd the abnormal vWf causes enhanced RIPA, SPA, and thrombocytopenia.
DRUG DESCRIPTORS:
*** beta thromboglobulin; *blood clotting factor 8; *thrombocyte factor 4**
CAS Registry Number: 66795-42-4 (beta thromboglobulin); 9001-27-8 (blood clotting factor 8); 37270-94-3... ...69670-74-2 (thrombocyte factor 4); 11006-74-9...

7/3,K/24 (Item 9 from file: 73) Links
EMBASE

03003382 **EMBASE No:** 1985047348

Carbohydrate moiety of von Willebrand factor is not necessary for maintaining multimeric structure and ristocetin cofactor activity but protects from proteolytic degradation

Federici A.B.; Elder J.H.; De Marco L.; et al.
Department of Basic and Clinical Research, Scripps Clinic and Research Foundation, La Jolla, CA 92037 United States
Journal of Clinical Investigation (J. CLIN. INVEST.) (United States) 1984 , 74/6 (2049-2055)
CODEN: JCINA
Document Type: Journal
Language: ENGLISH

Carbohydrate moiety of von Willebrand factor is not necessary for maintaining multimeric structure and ristocetin cofactor activity but protects from proteolytic...

...define the role of carbohydrate in the structure and ristocetin cofactor activity of von Willebrand factor, we have removed up to 83% of total hexose by sequential treatment of the molecule... ...galactosidase. Endo F alone removed 69% of total hexose and D-galactose, and 71% of sialic acid. However, there was no discernible loss of large multimers and the ristocetin cofactor activity was decreased by only 11%. The reduced von Willebrand factor subunit migrated more rapidly in polyacrylamide gels containing SDS, consistent with a 10% decrease of molecular mass. All multimers of unreduced carbohydrate-modified von Willebrand factor migrated more rapidly in SDS-agarose, but the triplet pattern of individual multimers was unchanged... ...resemble alterations found so far in von Willebrand disease variants. Further treatment of von Willebrand factor with neuraminidase and beta-galactosidase reduced the D-galactose to 15% and ristocetin cofactory activity to 57%. A similar decrease in ristocetin cofactor activity was seen if von Willebrand factor was treated only with neuraminidase and beta-galactosidase. In contrast, treating von Willebrand factor with neuraminidase and beta-galactosidase in the presence of protease inhibitors (20 mM benzamidine, 20 U/ml) aprotonin, 15 mug/ml leupeptin) resulted in a comparable... ...spite of 80% removal of D-galactose. This suggested that carbohydrate was protecting von Willebrand factor against traces of one or more protease contaminants. Evidence in support of this hypothesis was obtained by exposing von Willebrand factor to plasmin after pretreatment with neuraminidase alone or with neuraminidase and beta-galactosidase. A loss of large multimers was observed from von Willebrand factor that had been pretreated with neuraminidase, but this was even greater if pretreatment was also with beta-galactosidase. In contrast, the multimeric structure of von Willebrand factor with intact carbohydrate was not affected by plasmin under similar conditions. These studies suggest that carbohydrate protects von Willebrand factor from disaggregation occurring secondarily to proteolytic attack but does not play a direct role in...

DRUG DESCRIPTORS:
*** blood clotting factor 8; *carbohydrate**
CAS Registry Number: 9001-27-8 (blood clotting factor 8); 9001-67-6 (sialidase); 11006-74-9...

7/3,K/25 (Item 10 from file: 73) **Links**
EMBASE

02726047 **EMBASE No:** 1984095006
Blood clotting factor IX. Loss of activity after cleavage of sialic acid residues

Chavin S.I.; Weidner S.M.
Hematology Unit, Rochester General Hospital, Rochester, NY 14621 United States
Journal of Biological Chemistry (J. BIOL. CHEM.) (United States) 1984 , 259/6 (3387-3390)
CODEN: JBCHA
Document Type: Journal
Language: ENGLISH
Blood clotting factor IX. Loss of activity after cleavage of sialic acid residues

Enzymatic cleavage of sialic acid from human blood clotting factor IX results in a loss of factor IX clotting activity. The loss of clotting activity and the rate of release of sialic acid follow the same time courses. Control experiments have ruled out several explanations for the loss of factor IX activity: proteolytic degradation, inhibitory effects of free sialic acid, and non-specific inhibition of the clotting assays. Furthermore, no inhibition was seen when similar enzymatic cleavage was carried out on factor X and factor VIII. Therefore, we suggest that the loss of factor IX activity is the direct result of cleavage of sialic acid from the protein. Most of the inhibition appeared to be an effect on the activity of factor IX(a) itself, and thus far, little or no effect has been shown on the activation of factor IX to IX(a). The structural basis for this unusual effect of sialic acid on protein function currently is being investigated.
DRUG DESCRIPTORS:
*** blood clotting factor 9; *sialic acid**
CAS Registry Number: 9001-28-9 (blood clotting factor 9)

7/3,K/26 (Item 11 from file: 73) **Links**
EMBASE

02086015 **EMBASE No:** 1982189109
Effects of galactose-binding lectins on human blood platelets: Identity of the peanut agglutinin receptor with the Von Willebrand factor receptor

Naim H.Y.; Clemetson K.J.; Luscher E.F.
Theodor Kocher Inst., Univ. Berne, CH-3000 Bern 9 Switzerland
Thrombosis Research (THROMB. RES.) (United States) 1982 , 26/6 (431-441)
CODEN: THBRA
Document Type: Journal
Language: ENGLISH
...lectins on human blood platelets: Identity of the peanut agglutinin receptor with the Von Willebrand factor receptor

...were treated with neuroaminidase and resuspended in platelet-poor plasma, source of human von Willebrand factor (vWF) (denoted desialo-platelets). Peanut agglutinin (PNA), soybean agglutinin (SBA) and Ricinus communis agglutinin (RCAI) induced... ...of desialo-platelets down to concentrations of 25 mug/ml. Agglutination of platelets by ristocetin/vWF was not affected by removal of the terminal sialic acid. In subagglutinating concentrations, PNA inhibited the ristocetin-induced agglutination of desialo-platelets whereas SBA and RCAI were without effect. When... ...was greatly impaired, SBA and RCAI reacted normally. These results indicate that PNA and ristocetin/vWF compete in binding to the same receptor. Since asialoglycoprotein Ib was shown earlier to be... ...a PNA-Sepharose affinity column these results provide further evidence that glycoprotein Ib is the vWF receptor on human platelets and that the carbohydrate-rich outer part of glycoprotein Ib is...
DRUG DESCRIPTORS:
*** blood clotting factor 8; *peanut agglutinin**
CAS Registry Number: 9001-27-8 (blood clotting factor 8)

7/3,K/27 (Item 12 from file: 73) Links
EMBASE

02028743 **EMBASE No:** 1981015918
Studies on factor VIII-related protein. IV. Interaction of galactose-specific lectins with human factor VIII/Von Willebrand factor

Furlan M.; Perret B.A.; Beck E.A.
Cent. Hematol. Lab., Inselsp., 3010 Berne Switzerland
Biochimica et Biophysica Acta (BIOCHIM. BIOPHYS. ACTA) (Netherlands) 1980 , 623/2 (402-411)
CODEN: BBACA
Document Type: Journal
Language: ENGLISH
Studies on factor VIII-related protein. IV. Interaction of galactose-specific lectins with human factor VIII/Von Willebrand factor

Factor VIII of human cryoprecipitate was purified and fractionated on Sepharose CL-2B into three fractions... ...and RCA(II)). Measurements of fluorescence indicated that the reduced chains, derived from the largest factor VIII multimers, have a stronger binding affinity for both lectins than those obtained after reduction of smaller factor VIII species. Ristocetin cofactor activity of purified factor VIII was competitively inhibited by both Ricinus lectins and by concanavalin A. RCA(I)-lectin was found to be a considerably more efficient inhibitor than RCA(II) or concanavalin A. Following removal of sialic acid from factor VIII, the inhibiting effect of RCA(II)-lectin was markedly potentiated, probably by exposing additional galactose residues, some of which must be located close to the ristocetin cofactor 'active site' of factor VIII. Ristocetin cofactor activity was also strongly inhibited by specific rabbit antibodies to human factor VIII. Such antibodies competed with RCA(II)-lectin for binding sites which are located on the surface of factor VIII multimers. Our results suggest that RCA(I)-lectin, which contains two galactose-specific binding sites per molecule, and anti-factor VIII antibodies inhibit ristocetin cofactor activity by crosslinking and aggregation of factor VIII multimers.
DRUG DESCRIPTORS:
*** blood clotting factor 8; *galactose; *phytohemagglutinin**
CAS Registry Number: 9001-27-8 (blood clotting factor 8); 26566-61-0...

7/3,K/28 (Item 13 from file: 73) **Links**
EMBASE

01828656 **EMBASE No:** 1981199812
Properties of human asialo-factor VIII. A ristocetin-independent platelet-aggregating agent

De Marco L.; Shapiro S.S.
Cardeza Found. Hematol. Res., Dept. Med., Jefferson Med. Coll. Thomas Jefferson Univ., Philadelphia, Pa. 19107 United States
Journal of Clinical Investigation (J. CLIN. INVEST.) (United States) 1981 , 68/2 (321-328)
CODEN: JCINA
Document Type: Journal
Language: ENGLISH
Properties of human asialo-factor VIII. A ristocetin-independent platelet-aggregating agent

Human Factor VIII desialylated by treatment with Vibrio cholerae neuraminidase (ASVIII) aggregates human platelets in the absence... ...lesser extent, in washed platelet suspensions. Aggregation is accompanied by thromboxane formation and is completely inhibited by EDTA. Aspirin blocks the second phase of aggregation and abolishes thromboxane production. Subaggregating doses... ...either did not aggregate with ASVIII (two cases) or showed markedly decreased aggregation (one case). Factor VIII complex was prepared from the plasma of two patients with variant von Willebrand's disease (sialic acid content 142 and 75 nmol/mg, respectively); neither protein generated platelet-aggregating activity upon desialylation. (sup 3H)ASVIII binds rapidly to platelets at 37degreeC, while tritiated, fully sialylated factor VIII binds to a negligible extent. As little as 1-2 mug ASVIII bound/10sup... ...is capable of inducing platelet aggregation. ASVIII may be a useful tool for investigating platelet-Factor VIII interactions in the absence of ristocetin. Furthermore, desialylated Factor VIII might play a physiologic role in Factor VIII-mediated platelet reactions in vivo.
DRUG DESCRIPTORS:
*** acetylsalicylic acid; *blood clotting factor 8; *edetic acid; *sialidase; *ristocetin**
CAS Registry Number: ...63781-77-1 (acetylsalicylic acid); 9001-27-8 (blood clotting factor 8); 150-43-6...

7/3,K/29 (Item 14 from file: 73) **Links**
EMBASE

01697299 **EMBASE No:** 1980065493
Carbohydrate composition and identification of blood group A, B, and H oligosaccharide structures on human factor VIII/Von Willebrand factor

Sodetz J.M.; Paulson J.C.; McKee P.A.
Howard Hughes Med. Inst. Lab., Dept. Med., Duke Univ. Med. Cent., Durham, N.C. 27710 United States
Journal of Biological Chemistry (J. BIOL. CHEM.) (United States) 1979 , 254/21 (10754-10760)
CODEN: JBCHA
Document Type: Journal
Language: ENGLISH
Carbohydrate composition and identification of blood group A, B, and H oligosaccharide structures on human factor VIII/Von Willebrand factor

Human Factor VIII/von Willebrand Factor purified from pooled normal plasma contains 3.7% sialic acid, 2.4% galactose, 4.0% N-acetylglucosamine, 3.2% mannose, 1.0% fucose, and 0.7% N-acetylgalactosamine. By hemagglutination inhibition, it was demonstrated that type A, B, and O(H) blood group activities are associated with this glycoprotein. Type A blood group activity of both Factor VIII/von Willebrand Factor and asialo-porcine submaxillary mucin was significantly reduced by incubation with the limpet alpha-N... ...blood group acceptors. By measurement of the amount of (sup 1sup 4C)GalNAc incorporated into Factor VIII/von Willebrand Factor before and after N-acetylgalactosaminidase treatment, the content of type A and H blood group... ...protein was confirmed by both lipid extraction and polyacrylamide gel experiments using N-acetylgalactosaminidase-treated Factor VIII/von Willebrand Factor which had (sup 1sup 4C)GalNAc reincorporated into it. Treatment of this derivative with partially... ...corresponding to type A and H blood group active structures, respectively, are present on normal Factor VIII/von Willebrand protein in a beta1 <rt arrow> 4 linkage to the penultimate sugar... ...may bear on the recognized tendency for some hemophilic patients to develop antibodies toward FVIII/vWF following repeated infusions of FVIII/vWF pooled concentrations.
DRUG DESCRIPTORS:
*** blood clotting factor 8**
CAS Registry Number: 9001-27-8 (blood clotting factor 8)

7/3,K/30 (Item 15 from file: 73) Links
EMBASE

01392207 **EMBASE No:** 1979112977
Activation of factor X by factors IXa and VIII; A specific assay for factor IXa in the presence of thrombin-activated factor VIII

Hultin M.B.; Nemerson Y.
Div. Hematol., Dept. Med., State Univ. New York, Stony Brook, N.Y. United States
Blood (BLOOD) (United States) 1978 , 52/5 (928-940)
CODEN: BLOOA
Document Type: Journal
Language: ENGLISH
Activation of factor X by factors IXa and VIII; A specific assay for factor IXa in the presence of thrombin-activated factor VIII

The authors studied the activation of factor X by the intrinsic pathway of blood coagulation using a new assay of factor X activation. When factor X tritiated in its sialic acid residues is activated, activation can be measured by the release of tritiated activation peptide... ...activation can be determined under varying conditions. In the presence of phospholipid and calcium ions, factor IXa activated factor X slowly without factor VIII, and this activation was blocked by a specific factor IX inhibitor. These data provide strong evidence that factor IXa is the enzyme responsible for factor X activation by the intrinsic pathway. The role of factor VIII was also investigated. Factor VIII could be reproducibly thrombin activated and then stabilized by the addition of mM benzamidine hydrochloride; this suggests that inactivation is due to proteolysis. Neither unactivated nor thrombin-activated factor VIII produced factor X activation without factor IXa. With a constant level of factor IXa, factor X activation was directly proportional to the level of activated factor VIII. With a constant level of activated factor VIII, factor X activation was proportional to the factor IXa concentration. This observation was exploited to develop a specific, sensitive assay for factor IXa.
DRUG DESCRIPTORS:
*** blood clotting factor**

7/3,K/31 (Item 16 from file: 73) Links
EMBASE

00560463 **EMBASE No:** 1976116087
The interaction of bovine factor VIII with human platelets

Kirby E.P.; Mills D.C.B.
Dept. Biochem., Temple Univ. Hlth Sci. Cent., Philadelphia, Pa. 19140 United States
Journal of Clinical Investigation (J. CLIN. INVEST.) 1975 , 56/2 (491-502)
CODEN: JCINA
Document Type: Journal
Language: ENGLISH
The interaction of bovine factor VIII with human platelets

Treatment of human platelets with purified bovine Factor VIII caused three types of aggregation: (a) primary agglutination; (b) secondary aggregation involving the platelet... ...with formalin were not aggregated by ADP, thrombin, or collagen, but were agglutinated by bovine Factor VIII, although they did not show super aggregation. Formalin treated platelets were agglutinated by phytohemagglutinin P less extensively and less rapidly than by bovine Factor VIII. Treatment of platelets and Factor VIII with neuraminidase released 60 and 53%, respectively, of the sialic acid residues without affecting the agglutination reaction or the procoagulant activity of the Factor VIII. Agglutination was inhibited by high salt concentrations, dextran sulfate, and heparin. During agglutination, both the procoagulant and platelet agglutinating activities of Factor VIII became bound to the platelet surface.
DRUG DESCRIPTORS:
*** adenosine diphosphate; *agarose; *antimycin a1; *blood clotting factor; *blood clotting factor 8; *collagen; *dextran sulfate; *heparin; *sialidase; *phytohemagglutinin; *polylysine; *serotonin ; *sialic acid; *thrombin**

MEDICAL DESCRIPTORS:
*** antigen antibody reaction; *blood clotting; *cattle; *drug inhibition; *human; *thrombocyte; *thrombocyte aggregation; *thrombocyte release reaction**
CAS Registry Number: ...642-15-9 (antimycin a1); 9001-27-8 (blood clotting factor 8); 9007-34-5 (collagen); 9011-18-1...

7/3,K/32 (Item 17 from file: 73) **Links**
EMBASE

00096680 **EMBASE No:** 1974086774
Aggregation of human platelets by bovine or human factor VIII: role of carbohydrate side chains

Vermylen J.; Donati M.B.; De Gaetano G.; Verstraete M.
Lab. Blood Coagulat., Med. Res. Dept., Univ. Leuven Belgium
Nature (NATURE) 1973 , 244/5412 (167-168)
CODEN: NATUA
Document Type: Journal
Language: ENGLISH
Aggregation of human platelets by bovine or human factor VIII: role of carbohydrate side chains

Bovine factor VIII has been shown to aggregate human platelets. The present study suggests that this action is dependent on the carbohydrate side chains containing galactose, but not terminated by sialic acid, found in bovine factor VIII. These side chains bind with sialyl transferase located on the platelet membrane and form a substrate - enzyme complex, presumably just as collagen and platelets interact to produce platelet aggregation. Exposure of bovine factor VIII to galactose oxidase abolished the aggregating property. Human factor VIII does not aggregate platelets, unless preincubated with neuraminidase, thereby exposing galactose containing side chains not terminated by sialic acid. Exposure to galactose oxidase also inhibits this reaction. The authors suggest that the defective platelet adhesiveness of Von Willebrand's disease may be related to the lack of available factor VIII seen in this disease. (Slyck - Detroit, Mich.)
DRUG DESCRIPTORS:
*** blood clotting factor 8**
CAS Registry Number: 9001-27-8 (blood clotting factor 8)

7/3,K/33 (Item 1 from file: 266) Links
FEDRIP

00609872
Identifying No.: 5R01HL078679-02 **Agency Code:** CRISP
Inhibition of leukocyte C2GlcNAcT--l reduces thrombosis

Principal Investigator: HUO, YUQING
Address: YUQING@UMN.EDU CARDIOVASC DIV & VASC BIO CTR 420 DELAWARE ST SE, MMC 508 MINNEAPOLIS, MN 55455
Performing Org.: UNIVERSITY OF MINNESOTA TWIN CITIES , MINNEAPOLIS , MINNESOTA
Sponsoring Org.: NATIONAL HEART, LUNG, AND BLOOD INSTITUTE
Dates: 2009/26/04 **To** 2008/31/08 **Fy :** 2005
Summary: ...selectin glycoprotein ligand-1 (PSGL-1) participate in a variety of thrombotic processes including tissue **factor** (TF) generation and transfer. PSGL-1 has a specific "O-linked" oligosaccharide terminating with a **sialyl** Lewis-X moiety, which is crucial for its binding to P-selectin. Leukocyte core 2... ...study, we have found that deficiency of C2GlcNAcT-I in C57BL/6 mice prolongs plasma **clotting** time and **inhibits** thrombus formation. We hypothesize that leukocyte C2GlcNAcT-I is involved in monocytic tissue **factor** (TF) production and homing of circulating TF-carrying microparticles (MPs) to thrombi in **atherosclerotic** mice. Deficiency of leukocyte C2GlcNAcT-I or **inhibition** of its activity results in amelioration of the procoagulant state and suppression of thrombus formation in apolipoprotein E deficient (apoE-/-) mice. **Inhibition** of C2GlcNAcT-I may be a novel approach for preventive and therapeutic interventions in arterial thrombosis in **atherosclerosis.**
Descriptors: laboratory mouse; genetically modified animal; thromboplastin; platelet activation; **atherosclerosis**; thrombosis; cell migration; flow cytometry; carotid artery; polymerase chain reaction; enzyme inhibitor; gene expression; glycosyltransferase...

7/3,K/34 (Item 1 from file: 357) Links
Derwent Biotech Res.

0382019 **DBA Accession No.:** 2005-27725 **PATENT**
Determining response to the pharmaceutical agent for hypertension comprises analyzing test samples for the presence or amount of specific markers for cardiovascular illness or hypertension treatment pharmaceutical agent response determination and antisense sequence for use in disease therapy and gene therapy

Author: DIAMOND C; MAN A; BREMER T
Patent Assignee: DIAMOND C; MAN A; BREMER T 2005
Patent Number: US 20050181386 **Patent Date:** 20050818 **WPI Accession No.:** 2005-655559 (200567)
Priority Application Number: US 948834 **Application Date:** 20040922
National Application Number: US 948834 **Application Date:** 20040922
Language: English
Abstract: ...mutant messenger RNA, the antisense or small interfering RNA sequences adapted to bind to and **inhibit** transcription or translation of the target genes without preventing transcription or translation of wild-type ... ...regressor. The anti-hypertensive medication belongs to the class known as angiotensin converting enzyme (ACE) **inhibitors**. It is the molecule monopril or lisinopril. At least one mutation is a silent mutation ... ...I and cardiac troponin T. Alternatively, the diagnostic outcome is that of determining risk of **atherosclerotic** plaque rupture, where the proteomic markers are selected from 2 or more of human neutrophil... ...selected from 2 or more of beta-thromboglobulin, D-dimer, fibrinopeptide A, platelet-derived growth **factor**, plasmin-alpha-2-antiplasmin complex, platelet **factor** 4, prothrombin fragment 1+2, P-selectin, thrombin-antithrombin III complex, thrombus precursor protein, tissue **factor**, and von Willebrand **factor**. Alternatively, the diagnostic outcome is that of determining risk of acute coronary syndrome, where the... ...heart-type fatty acid binding protein, phosphoglyceric acid mutase-MB, S-100ao, a marker of **atherosclerotic** plaque rupture, a marker of coagulation, C-reactive protein, caspase-3, hemoglobin alpha sub2, human... ...adhesion molecule-1, soluble vascular cell adhesion molecule-1, MMP-9, TpP, and tumor necrosis **factor** alpha. Alternatively, the diagnostic outcome is that of determining risk of myocardial necrosis, where the... ...Cellular-Fibronectin, apolipoprotein CI (ApoC-I), apolipoprotein CIII (ApoC-III), serum amyloid A (SM), Platelet **factor** 4 (PF4), anti-thrombin-III fragment (AT-III fragment), Creatine kinase (CK-BB), troponin, BDNF, CPK, LDH Isoenzymes, Thrombin-Antithrombin III, Protein C, Protein S, fibrinogen, **Factor** VIII, activated Protein C resistance, E-selectin, P-selectin, von Willebrand **factor** (**vWF**), platelet-derived microvesicles (PDM), plasminogen activator **inhibitor**-1 (PAI-1), annexin V, B-type natriuretic peptide (BNP), pro-BNP, N-terminal pro... ...FABP), phosphoglyceric acid mutase-MB, S-100beta, S-100ao, myelin basic protein, a marker of **atherosclerotic** plaque rupture, a marker of coagulation, NR2A/2B (a subtype of N-methyl-D-aspartate... ...molecule-1, soluble vascular cell adhesion molecule-1, MMP-2, MMP-3, MMP-9, tissue **factor** (TF), fibrin D-dimer (D-dimer), total **sialic** acid (TSA), TpP, heat shock protein 60, and tumor necrosis **factor** alpha, tumor necrosis **factor** receptors 1 and 2, VEGF, Calbindin-D, Proteolipid protein RU Malendialdehyde neuron-specific enolase (NSE) (gammagamma isoform), Fibrinopeptide A (FPA), plasmin-alphalpha-2AP complex (PAP), also plasmin **inhibitory** complex (PIC), beta-thromboglobulin (betaTG), Prothrombin fragment 1+2, PGI2, Creatinine phosphokinase, brain band, neurotrophin... ...4/5), neurokinin A, neurokinin B, neurotensin, neuropeptide Y, Lactate dehydrogenase (LDH), Insulin-like growth **factor**-1 (IGF-1), PGE2, 8-epi PGF-sub-2alpha, and Transforming growth **factor** beta (TGFbeta). The proteomic markers are comprised of a panel of about 3, 4, 5... ...9 or TAT; TAT; IL-8 or IL-1b; D-Dimer or VCAM; VCAM; BNP, **vWF**, IL-6 or Caspase 3, NCAM or IL-1, etc. The non-proteomic markers are...

7/3,K/35 (Item 2 from file: 357) Links
Derwent Biotech Res.

0334524 **DBA Accession No.:** 2004-06816 **PATENT**
Preparation useful for treating Factor VII responsive syndrome such as hemophilia, comprising several Factor VII polypeptides or Factor VII-related polypeptides involving vector-mediated gene transfer and expression in host cell for use in therapy

Author: KLAUSEN N K; BJORN S; BEHRENS C; GARIBAY P W
Patent Assignee: NOVO NORDISK AS 2003
Patent Number: WO 200400366 **Patent Date:** 20031231 **WPI Accession No.:** 2004-090926 (200409)
Priority Application Number: US 394778 **Application Date:** 20020701
National Application Number: WO 2003DK420 **Application Date:** 20030620
Language: English
Preparation useful for treating Factor VII responsive syndrome such as hemophilia, comprising several Factor VII polypeptides or Factor VII-related polypeptides involving vector-mediated gene transfer and expression in host cell for use...
Abstract: DERWENT ABSTRACT: NOVELTY - Preparation (I) comprising several Factor VII polypeptides (II) or Factor VII-related polypeptides (III) having asparagine-linked and/or serine-linked oligosaccharide chains, where an... ...of the half-life of the reference preparation. The polymeric group is attached to a sialic acid moiety, where 98-100, 96-100 or 94-100 % of the oligosaccharide chains comprise a sialic acid moiety and less than 25, 10 or preferably 2 % of the oligosaccharide chains contain... ...residues Asn at position 145 and Asn at position 322 of wild-type activated human Factor VII comprising a 406 amino acid sequence (S1), given in the specification. The serine-linked... ...to amino acid residues Ser at positions 52 and 60 of wild-type activated human Factor VII. The polymers are chosen from polyalkylene oxide (PAO), including polyalkylene glycol (PAG), such as... ...or 10 kDa. (II) or (III) has (S1) and is a plasma-derived human activated Factor VII. (II) is chosen from S52A-Factor VII, S60A-Factor VII, Factor VII that has been proteolytically cleaved between residues 290 and 291, or between residues 315 and 316, Factor VII that has been oxidized, L305V-FVII, L305V/M306D/D309S-FVII, L3051-FVII, L305T-FVII... ...FVII, V158D/E296V/M298Q-FVII, K337A-FVII, M298Q-FVII, V158D/M298Q-FVII, L305V/K337A-FVII, Factor VII-sequence variants, where the amino acid residue at positions 290 and/or 291, preferably 290, have been replaced, and Factor VII-sequence variants, where the amino acid residue at position 315 and/or 316, preferably... ...E296V-FVII, L305V/K337A/V158D-FVII, L305V/V158D/M298Q-FVII, L305V/V158D/E296V-FVII or Factor VII having substitutions, additions or deletions in the amino acid sequence from Thr at position... ...and Ile at position 153 to Arg at position 223. (II) is chosen from R152E-Factor VII, S344A-Factor VII, FFR-Factor VII, and Factor VII (activated) lacking the Gla domain. (III) exhibits 25, preferably 50, more preferably 75 and most preferably 90 % of the specific activity of wild-type Factor VII (activated) that has been produced in the same cell type, when tested in one or more of a clotting assay, proteolysis assay, or TF binding assay or (III) exhibits 25, preferably less than 10... ...than 5 and most preferably less than 1 % of the specific activity of wild-type Factor VII (activated). ACTIVITY - Hemostatic; Tranquilizer; Vulnerary; Cerebroprotective; Anticoagulant; Cardiant; Antiinflammatory; Cytostatic. No biological data is... ...MECHANISM OF ACTION - None given. USE - (I) is useful for preparing a medicament for treating Factor VII responsive syndrome, for preventing unwanted bleeding or for preventing tissue factor mediated reactions. (I) is useful for preparing (IV) which is useful for treating a Factor VII-responsive syndrome which involves administering (IV) to a patient in need of the treatment under conditions that result in a decrease in bleeding and/or an increase in blood clotting, where the syndrome is chosen from hemophilia A, hemophilia B, Factor XI deficiency, Factor VII deficiency, thrombocytopenia, von Willebrand's disease, presence of a clotting

factor inhibitor, surgery, trauma, and anticoagulant therapy, including dilutional coagulopathy, intercranial hemorrhage, stem cell transplantation, upper gastrointestinal bleedings and liver disease. (IV) is useful for preventing unwanted bleeding, unwanted blood clotting or tissue factor mediated reactions, which involves administering (IV) to a patient in need of the treatment under conditions that result in a decrease in bleeding and/or an increase in blood clotting or under conditions effective for inhibiting coagulation, where (IV) comprises (III) for preventing tissue factor mediated reactions. The unwanted blood clotting is associated with a condition chosen from angioplasty, deep vein thrombosis, pulmonary embolism, stroke, disseminated ... ...deposition in lungs and kidneys associated with Gram-negative endotoxemia, and myocardial infarction. The tissue factor mediated reactions are associated with a condition chosen from inflammation, cancer, tumor growth, metastasis, angiogenesis...
Descriptors: recombinant Factor-VII prep., isol., vector-mediated gene transfer, expression in host cell, appl. cancer, inflammation, hemopathy, vulnerary, cardiovascular disorder therapy blood-clotting protein tumor (23, 13)

7/3,K/36 (Item 3 from file: 357) Links
Derwent Biotech Res.

0292853 **DBA Accession No.:** 2002-14700 **PATENT**
Pharmaceutical composition for treatment or prophylaxis of atherosclerosis comprises human or recombinant human complement proteins e.g., mannose-binding lectins, C4A, C4B, C2, vitronectin, clusterin vector-mediated gene transfer and expression in host cell for recombinant protein production, vaccine and gene therapy

Author: CABEZAS M C; VAN DIJK H
Patent Assignee: UNIV UTRECHT MEDISCH CENT 2002
Patent Number: EP 1186299 **Patent Date:** 20020313 **WPI Accession No.:** 2002-282869 (200233)
Priority Application Number: EP 2000203156 **Application Date:** 20000912
National Application Number: EP 2000203156 **Application Date:** 20000912
Language: English
Pharmaceutical composition for treatment or prophylaxis of atherosclerosis comprises human or recombinant human complement proteins e.g., mannose-binding lectins, C4A, C4B, C2...
Abstract: DERWENT ABSTRACT: NOVELTY - Pharmaceutical composition for the treatment/prophylaxis of atherosclerosis or underlying and/or related disease, comprising human or recombinant human complement protein (I) or... ...or fragments of (I), is new. DETAILED DESCRIPTION - Pharmaceutical composition for the treatment/prophylaxis of atherosclerosis or underlying and/or related disease, comprising human or recombinant human complement protein e.g... ...included for the following: (1) use of at least one complement activator and/or complement inhibitor for the manufacture of a medicament for the treatment and/or prevention of atherosclerosis or underlying/related disease; (2) an in-vitro assay for the estimation of complement activation... ...or (semi)synthetic substances as a parameter of their anti-atherogenic potential; (3) diagnosing (M1) atherosclerosis or underlying or related disease by carrying out an assay for at least one activatory or regulatory complement component; (4) kit for diagnosing atherosclerosis or underlying/related disease by (M1), comprising an unit for carrying out an assay for at least one natural activatory or inhibitory complement component; (5) use of lipidated vaccine (II) for oral immunization; (6) use of whole... ...the lectin complement activation pathway. (I) also comprises one or more soluble or liquidated complement inhibitors of natural or (semi)synthetic origin (e.g., sialylated glycolipids). The natural or (semi)synthetic complement activator or complement inhibitor has been produced by combinatorial strategies or by in vivo generation. (I) further comprises a... ...B(apo B48, apo B100, or both), mannose-binding lectin (MBL), C4, C4A, C4B, C2, factor B, factor D, vitronectin, clusterin, erythrocyte-bound complement receptor 1 (CR1), C3adesArg, carboxypeptidase-N, or chylomicron-bound sialic acid. Preferred Vaccine: (II) comprises one or more immunological adjuvant such as lipidated tertiary or... ...regulator of chylomicron remnants clearance. USE - The pharmaceutical composition is useful for treating or preventing atherosclerosis or underlying/related disease (claimed). The pharmaceutical composition is also useful for treating insulin resistance...
Descriptors: ...gene transfer, expression in host cell, polyclonal antibody, humanized antibody, monoclonal antibody, appl. recombinant vaccine, atherosclerosis, insulin resistance, type-II diabetes mellitus, obesity, coronary heart disease, familial combined hyperlipidemia, post-prandial...

7/3,K/37 (Item 4 from file: 357) Links
Derwent Biotech Res.

0290991 **DBA Accession No.:** 2002-12838 **PATENT**
Novel preparation of Factor VII polypeptides, useful for treating hemophilia and thrombocytopenia, where the polypeptides have asparagine-lined oligosaccharide chains vector expression in host cell for recombinant protein gene production useful in disease therapy

Author: PINGEL H K; KLAUSEN N K
Patent Assignee: NOVO NORDISK AS 2002
Patent Number: WO 200229025 **Patent Date:** 20020411 **WPI Accession No.:** 2002-340101 (200237)
Priority Application Number: DK 2001751 **Application Date:** 20010514
National Application Number: WO 2001DK633 **Application Date:** 20011002
Language: English
Novel preparation of Factor VII polypeptides, useful for treating hemophilia and thrombocytopenia, where the polypeptides have asparagine-lined oligosaccharide...
Abstract: DERWENT ABSTRACT: NOVELTY - A preparation of Factor VII, or related, polypeptides, is new. The polypeptides comprise asparagine-linked oligosaccharide chains, where 94-99 % have a sialic moiety, 1-7 % have a neutral charge, 6-16 % have a terminal galactose, 6-9... ...acetylglucosamine. DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following: (1) a preparation comprising Factor VII polypeptides, comprising asparagines-linked oligosaccharide chains, where 94-100 % of the chains have at least one sialic moiety, and 6-9 % have a terminal N-acetylgalactosamine; (2) a preparation comprising Factor VII polypeptides having wild-type Factor VII sequence, where the polypeptides comprise asparagine-linked chains, 94-99 % of which have a sialic acid residue; (3) determining the glycoform pattern of Factor VII, comprising: (a) culturing a cell expressing Factor VII; (b) recovering the Factor VII from the culture; and (c) analyzing the structure of the oligosaccharides linked to the polypeptides to determine the glycoform pattern of the preparation; and (4) producing a preparation comprising Factor VII polypeptide having a predetermined pattern of N-linked glycosylation, comprising culturing a cell expressing... ...conditions so that at least 94 % of the asparagine-linked oligosaccharides comprise at least one sialic acid. ACTIVITY - Hemostatic; Vulnerary; Anticoagulant; Thrombolytic; Cerebroprotective. No biological data is given. MECHANISM OF ACTION - None given. USE - For treating hemophilia A, hemophilia B, Factor XI deficiency, Factor VII deficiency, thrombocytopenia, von Willebrand's disease, presence of a clotting factor inhibitor, surgery, trauma, or anticoagulant therapy. The preparation can also be used to prevent unwanted bleeding. Where the preparation comprise Factor VII-related polypeptides, it can be used to prevent unwanted blood clotting associated with angioplasty, deep vein thrombosis, pulmonary embolism, stroke, disseminated intravascular coagulation, fibrin deposition in... ...gram-negative endotoxemia and myocardial infarction. The preparation can also be used in preventing tissue factor mediated reactions associated with systemic inflammatory response syndrome (SIRS), adult respiratory distress syndrome (ARDS), MOF... ...1.0-200 mg/day. EXAMPLE - A baby hamster kidney cell line transformed with a Factor VII-encoding plasmid was adapted to growth in suspension culture in the absence of serum... ...3-6x10 to the power 6 cells/ml and a titer of 2-7 mg Factor VII/liter. (35 pages)
Descriptors: Factor-VII protein prep., vector-mediated gene transfer expression in BHK, CHO, HEK human cell, asparagine-like oligosaccharide chain, appl. hemophilia A, hemophilia B, Factor XI deficiency, Factor VII deficiency, thrombocytopenia, von Willebrand disease, clotting factor inhibitor presence, surgery, trauma, angioplasty, deep vein thrombosis, pulmonary embolism, stroke, disseminated intravascular coagulation, fibrin... ...associated Gram-neg. endotoxemia, myocardial infarction, anticoagulant, unwanted

bleeding, systemic inflammatory response syndrome associated tissue factor mediated reaction, respiratory distress syndrome, hemolytic uremic syndrome blood-clotting protein animal baby hamster kidney mammal cell culture Chinese hamster ovary human embryo kidney hemostatic...

7/3,K/38 (Item 5 from file: 357) Links
Derwent Biotech Res.

0268724 **DBA Accession No.:** 2001-09030 **PATENT**
Modulating levels of von Willebrand factor or Factor-VIII in animals for preventing or treating atherosclerosis and blood clotting disorders, comprises administering an agent that modulates ST3Gal-IV-sialyltransferase activity
- antisense oligonucleotide for use in therapy

Author: Marth J D; Ellies L G
Corporate Source: San Diego, CA, USA.
Patent Assignee: Univ.California 2001
Patent Number: WO 200122921 **Patent Date:** 20010405 **WPI Accession No.:** 2001-258082 (2026)
Priority Application Number: US 157220 **Application Date:** 19990930
National Application Number: WO 2000US26550 **Application Date:** 20000927
Language: English
Modulating levels of von Willebrand factor or Factor-VIII in animals for preventing or treating atherosclerosis and blood clotting disorders, comprises administering an agent that modulates ST3Gal-IV-sialyltransferase activity
Abstract: Modulating (I) levels of von Willebrand factor (vWF) or Factor-VIII in an animal is claimed and involves administering to the animal an agent (e.g. antisense sequence hybridizing to ST3Gal-IV sialyltransferase encoding sequence) that causes an increase or decrease in ST3Gal-IV sialyltransferase activity. Also claimed are: monitoring (II) the efficacy of a method for inhibiting ST3Gal-IV in a mammal comprising testing cells obtained from the mammal for the presence or absence of a cell-surface oligosaccharide having a terminal alpha-2,3-linked sialic acid, where the absence of the terminal alpha-2,3-linked sialic acid is indicative of an inhibition of ST3Gal-IV inhibition; a eukaryotic cell that comprises non-naturally occurring mutation in an ST3Gal-IV allele; and a non-human chimeric or transgenic animal that comprises the eukaryotic cell. Modulating levels of vWF and Factor-VIII is used for therapy and prevention of atherosclerosis associated with coronary artery disease or peripheral vascular disease in an animal and for ameliorating blood clotting caused by side effect of drugs. The transgenic animal and cell are used for medical...
Descriptors: von Willebrand factor, Factor-VIII level reduction, sialyltransferase antisense oligonucleotide expression in e.g. transgenic animal, chimeric animal, gene therapy gene transfer blood-clotting enzyme
(Vol.20, No.17)

7/3,K/39 (Item 6 from file: 357) **Links**
Derwent Biotech Res.

0211400 **DBA Accession No.:** 97-06521 **PATENT**
Transgenic animals expressing antigen-reducing enzyme and complement-inhibitor - glycosyltransferase gene transfer to transgenic pig or transgenic mouse for use in organ or tissue transplantation

Author: Diamond L E; Logan J; Byrne G W; Sharma A
Corporate Source: Princeton, NJ, USA.
Patent Assignee: Nextran 1997
Patent Number: WO 9712035 **Patent Date:** 970403 **WPI Accession No.:** 97-225881 (9720)
Priority Application Number: US 675773 **Application Date:** 960703
National Application Number: WO 96US15255 **Application Date:** 960923
Language: English
Abstract: ...1,3-galactosyltransferase) masking or reducing levels of xenoreactive antigens, and at least 1 complement-**inhibitor** (e.g. CD59, DAF and/or MCP, or fibrinogen, **Factor**-H, C4 binding protein, CR1, CR2, C8 binding protein, HRF, MIP, P-18, HRF-20... ...components into a human. The GT may be alpha-1,2-fucosyltransferase, alpha-2,6-**sialyltransferase** and/or beta-1,3-N-acetylglucosaminyltransferase, and the gene may be cloned via reverse...
Descriptors: ...sialyltransferase beta-1,3-N-acetylglucosaminyltransferase reverse transcription-polymerase chain reaction CD59 DAF MCP fibrinogen **Factor**-H C4 binding protein CR1 CR2 C8 binding protein HRF MIP P-18 HRF-20 MIRL enzyme DNA amplification transformation gene transfer blood- **clotting** transgenic animal mammal fungus (Vol.16, No.12)

7/3,K/40 (Item 1 from file: 149) Links
TGG Health&Wellness DB(SM)

02422120 **Supplier Number:** 121403449 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Can low-molecular-weight heparin improve the outcome of patients with operable non-small cell lung cancer? An urgent call for research.(opinions/hypotheses)

Alifano, Marco; Benedetti, Giovanni; Trisolini, Rocco
Chest , 126 , 2 , 601(7)
August ,
2004
Publication Format: Magazine/Journal; Refereed
ISSN: 0012-3692
Language: English
Record Type: Fulltext **Target Audience:** Professional
Word Count: 5594 **Line Count:** 00463

...available for clinical studies. In particular, monoclonal antibodies and small molecules targeted to epidermal growth **factor** receptor were evaluated in a randomized setting of patients with advanced disease. (19) Though a...

...distinct steps and mechanisms, but it is well known that the components involved in blood **clotting** contribute to the systemic spread and/or successful implantation of metastatic cancer cells, but probably...

...supports the investigation of drugs possibly inhibiting metastatic spread via the interference in the blood-**clotting** pathway. What is more, both unfractioned heparin (UH) and low-molecular-weight heparin (LMWH) seem...

...in terfere with their behavior. (26) Heparin has been shown to bind basic fibroblast growth **factor** and hepatocyte G **factor** /scatter **factor**, thus inhibiting their potential binding to target cells. (28,29)
Another possible mechanism of anticancer...

...that inhibits platelet aggregation.
More recent studies (45,46) indicate that several anionic molecules that **inhibit** heparanases can diminish the extent of lung colonization by tumor cells. Furthermore, other reports (47...
...of a high rate of metastasis. In particular, the expression of sialylated fucosylated glycans like **sialyl** Lewis x-a correlates with a poor prognosis because of rapid tumor progression and metastatic spreads Carcinoma cell-surface mucins carrying **sialyl** Lewis x-a can be ligand for three members of the selectin family of cell...

...the pathologic interactions involving carcinoma cells with platelets, leukocytes, and endothelium. Heparin is an excellent **inhibitor** of

P-selectin binding to its natural ligands, presumably by mimicking these ligands, which contain...

...better and more consistent bioavailability, a much more convenient dosing schedule, while selectively inhibiting activated **factor** X (**factor** Xa). Overall, LMWHs are easier to manage in the clinical setting than UH, at least...

7/3,K/41 (Item 2 from file: 149) **Links**
TGG Health&Wellness DB(SM)

01712917 **Supplier Number:** 19713937 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Carbohydrate drugs - an ongoing challenge.

McAuliffe, Joseph C.; Hindsgaul, Ole
Chemistry and Industry , n5 , p170(5)
March 3 ,
1997
Publication Format: Magazine/Journal
ISSN: 0009-3068
Language: English
Record Type: Fulltext **Target Audience:** Trade
Word Count: 3450 **Line Count:** 00294

...a number of different proteins and thereby mediate a range of biological functions including blood **clotting**, formation of new blood vessels (angiogenesis), attachment of cells to extracellular matrix proteins (such as...II trial Cylexin has returned encouraging results for the treatment of tissue damage following lung-**clot** removal from human patients.(13) Given the size of the total market for anti-inflammatory...

...a complex mixture of polysaccharides, heparin has been used clinically since 1937 to treat thrombosis (**clotting**) because of its powerful anti-coagulant activity. Heparin acts by greatly increasing the ability of antithrombin III to inactivate thrombin and **factor** Xa, enzymes which promote coagulation. It soon became apparent that this form of heparin had ...carbohydrate drug developments in recent years has been the rational design of a small molecule **inhibitor** (GG167) of the influenza virus, currently being investigated by Glaxo Wellcome and Biota Holdings (ILLUSTRATION FOR FIGURE 6 OMITTED). This analogue of **sialic** acid prevents the function of the enzyme sialidase responsible for vital attachment to mammalian epithelial...

...modelling tools by Mark yon Itzstein's team at Monash University, Melbourne. Interestingly, this substance **inhibits** mammalian sialidases to a much lesser degree and therefore acts selectively against influenza strains A...

7/3,K/42 (Item 3 from file: 149) **Links**
TGG Health&Wellness DB(SM)

01423176 **Supplier Number:** 14052971 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Relation between sialic acid concentrations and the haemostatic system in the elderly.

Kario, Kazuomi; Matsuo, Takefumi
British Medical Journal , v306 , n6893 , p1650(2)
June 19 ,
1993
Publication Format: Magazine/Journal
ISSN: 0959-8146
Language: English
Record Type: Fulltext **Target Audience:** Professional
Word Count: 658 **Line Count:** 00075

Text:

...acid concentrations and death from cardiovascular disease remains uncertain. Fibrinogen is a well known risk **factor** for cardiovascular disease and, like sialic acid, is an acute phase reactant. Plasma fibrogen concentrations...

...hypertension and 48 were smokers. Blood samples were collected after an overnight fast, and serum **sialic** acid concentrations were measured by an enzymatic assay.[5] Serum total cholesterol and triglyceride concentrations...

...determined by enzymatic assays using cholesterol esterase, cholesterol oxidase, and glycerol-3-phosphate oxidase. The **clotting** activity of plasma fibrinogen and **factor** VII was determined by automated one-stage **clotting** assays. Plasma concentrations of antithrombin III, heparin cofactor II, plasminogen, and [alpha].sub.2]-plasma **inhibitor** were determined by chromogenic methods. The following variables were determined by enzyme linked immunoassay (ELISA): lipoprotein(a) (Biopool, Sweden), **factor** VII antigen, and D-dimer (Diagnostica Stago, France), complex of tissue plasminogen activator and its **inhibitor**-1, active tissue plasminogen activator **inhibitor**-1 antigen, plasmin-[apha.sub.2]-plasmin **inhibitor** complex (Teijin Co, Japan), and thrombin-antithrombin III complex (Behringwerke AG, Germany). Student's t...

...coefficients were calculated for the different variables.

There was a strong positive correlation between serum **sialic** acid concentrations and those of plasma fibrinogen and heparin cofactor II in these elderly men (figure). Serum **sialic** acid concentrations also

showed weak but significant positive correlations with the following variables: **factor** VII antigen (r=0.223, p<0.01), complex of tissue plasminogen activator and its **inhibitor** (r=0.282, p<0.001), plasminogen (r= 0.356, p<0.001), [alpha].sub.2]-plasmin **inhibitor** (r=0.291, p<0.001), thrombin-antithrombin III complex (r=0.203, p<0.02), plasmin-[alpha].sub.2]-plasmin **inhibitor** complex (r=0.232, p<0.01), triglycerides (r=0.200, p<0.02), and...

...0.53) g/l, p<0.01), and the six subjects with the higest serum **sialic** values were smokers, but the difference in mean serum **sialic** acid concentrations between smokers and non-smokers was not significant (0.58(0.09) [nu...

...0.05).

Comment

Our study confirmed the results of previous reports that serum concentrations of **sialic** acid show a weak positive correlation with triglyceride values.[2] In addition, **sialic** acid concentrations showed significant correlations with the plasma concentrations of procoagulant factors (fibrogen and **factor** VII antigen), activation markers of coagulation (thrombin-antithrombin III complex and plasmin-[alpha.sub.2]-plasmin **inhibitor** complex), protease **inhibitors** (antithrombin III and heparin cofactor II), and fibrinolytic variables (plasminogen and [alpha].sub.2]-plasmin **inhibitor**). All these factors are closely related to each other by various compensatory feedback mechanisms. In...

...heparin cofactor II values. These close positive correlations may be due to the fact that **sialic** acid, fibrinogen, and heparin cofactor II are all acute phase reactants. Alternatively, an increase in highly sialiated fibrinogen may be expressed as an increase in serum **sialic** acid concentrations. Smoking increased concentrations of both fibrinogen and **sialic** acid in this study. Our results thus indicate that fibrinogen may perhaps be the confounder that explains the apparent relation between high serum **sialic** acid concentrations and death from cardiovascular disease.

[1] Lindberg G, Eklund GA, Gullberg B, Rastam...

Descriptors:
...Blood **clotting**--

7/3,K/43 (Item 1 from file: 159) **Links**
Fulltext available through: SCIENCEDIRECT
Cancerlit

01130092 PMID: 78623633
DYSFIBRINOGENEMIA ASSOCIATED WITH HEPATOMA. INCREASED CARBOHYDRATE CONTENT OF THE FIBRINOGEN MOLECULE.

Gralnick; Givelber; Abrams
Hematology Service, Clinical Pathology Dept., Clinical Center, NIH, Bldg. 10, Room 5N-236, Bethesda, MD, 20014
N Engl J Med

1978 ,

299 (5) p221-226 , ISSN 0028-4793
Document Type: JOURNAL ARTICLE
Languages: ENGLISH
Main Citation Owner: NOTNLM
Record type: Completed
...these patients demonstrated prolongation of the prothrombin, thrombin, and reptilase times not related to coagulation-**factor** deficiency, while plasminogen, fibrinogen degradation products, plasminogen and euglobulin **clot** lysis time were normal. Both purified fibrinogen and plasma from the hepatoma patients **inhibited** the coagulation of normal plasma and fibrinogen. Fibrinogen purified from the plasma of two of these patients **clotted** slower than normal with thrombin and reptilase, and differed from normal fibrinogen on immunodiffusion, immunoelectrophoresis... ...high ionic strengths. Carbohydrate analysis of the two purified abnormal fibrinogens revealed increased levels of **sialic** acid (27 and 38%), neutral sugars (43 and 50%), and hexosamines (2.24 and 2.72%). Removal of **sialic** acid from the abnormal fibrinogen by neuraminidase treatment brought the thrombin time and the fibrin-monomer polymerization curves towards normal. The **sialic** acid content of the abnormal fibrinogen was similar to that of fetal fibrinogen, indicating that...

?